

**THE UNITED STATES DISTRICT COURT  
FOR THE EASTERN DISTRICT OF TEXAS  
MARSHALL DIVISION**

## KONINKLIJKE KPN N.V.,

*Plaintiff,*

V.

SAMSUNG ELECTRONICS CO., LTD.,  
et. al.,

### *Defendants.*

CASE NO. 2:14-CV-1165-JRG

LEAD CASE

## KONINKLIJKE KPN N.V.,

*Plaintiff,*

V.

SAMSUNG ELECTRONICS CO., LTD.,  
et. al.,

### *Defendants.*

CASE NO. 2:15-CV-948-JRG

## **CONSOLIDATED CASE**

## **MEMORANDUM OPINION AND ORDER**

Before the Court are Plaintiff Koninklijke KPN N.V.'s Opening Claim Construction Brief (Dkt. No. 146), Defendants' response (Dkt. No. 160), and Plaintiff's reply (Dkt. No. 163).

The Court held a claim construction hearing on April 19, 2016.

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Having reviewed the arguments made by the parties at the hearing and in the parties' claim construction briefing (Dkt. Nos. 69, 78, and 88), having considered the intrinsic evidence, and having made subsidiary factual findings about the extrinsic evidence, the Court hereby issues this Claim Construction Memorandum Opinion and Order. *See Phillips v. AWH Corp.*, 415 F.3d 1303, 1314 (Fed. Cir. 2005); *Teva Pharm. USA, Inc. v. Sandoz, Inc.*, 135 S. Ct. 831, 841 (2015).

## **I. BACKGROUND**

Plaintiff brings suit alleging infringement of United States Patent Nos. 5,930,250 ("the '250 Patent"), 6,212,662 ("the '662 Patent"), 8,886,772 ("the '772 Patent"), and 9,014,667 ("the '667 Patent") (collectively, "the patents-in-suit"). (Dkt. No. 146, Exs. A-D.) The Court addresses the disputed terms on a patent-by-patent basis, below, as the parties have done in their briefing.

Also of note, the Court granted two motions for leave to submit supplemental claim construction evidence, both of which were ultimately unopposed. *See* Dkt. Nos. 186, 187, 192. In granting these motions, the Court has not thereby implied that any particular weight, or any weight at all, should necessarily be given to the supplemental evidence. In particular, the Court notes that inventor testimony is of minimal, if any, weight in these claim construction proceedings because inventor testimony is "limited by the fact that an inventor understands the invention but may not understand the claims, which are typically drafted by the attorney prosecuting the patent application." *Howmedica Osteonics Corp. v. Wright Med. Tech., Inc.*, 540 F.3d 1337, 1346-47 (Fed. Cir. 2008).

## **II. LEGAL PRINCIPLES**

It is understood that "[a] claim in a patent provides the metes and bounds of the right which the patent confers on the patentee to exclude others from making, using or selling the

protected invention.” *Burke, Inc. v. Bruno Independ. Living Aids, Inc.*, 183 F.3d 1334, 1340 (Fed. Cir. 1999). Claim construction is a legal issue that may be based on underlying findings of fact. *Teva*, 135 S.Ct. at 841. “In cases where [ ] subsidiary facts are in dispute, courts will need to make subsidiary factual findings about that extrinsic evidence. These are the ‘evidentiary underpinnings’ of claim construction that we discussed in *Markman*, and this subsidiary factfinding must be reviewed for clear error on appeal.” *Id.* (citation omitted).

To ascertain the meaning of claims, courts look to three primary sources: the claims, the specification, and the prosecution history. *Markman*, 52 F.3d at 979. The specification must contain a written description of the invention that enables one of ordinary skill in the art to make and use the invention. *Id.* A patent’s claims must be read in view of the specification, of which they are a part. *Id.* For claim construction purposes, the description may act as a sort of dictionary, which explains the invention and may define terms used in the claims. *Id.* “One purpose for examining the specification is to determine if the patentee has limited the scope of the claims.” *Watts v. XL Sys., Inc.*, 232 F.3d 877, 882 (Fed. Cir. 2000).

Nonetheless, it is the function of the claims, not the specification, to set forth the limits of the patentee’s invention. Otherwise, there would be no need for claims. *SRI Int’l v. Matsushita Elec. Corp.*, 775 F.2d 1107, 1121 (Fed. Cir. 1985) (en banc). The patentee is free to be his own lexicographer, but any special definition given to a word must be clearly set forth in the specification. *Intellicall, Inc. v. Phonometrics, Inc.*, 952 F.2d 1384, 1388 (Fed. Cir. 1992). Although the specification may indicate that certain embodiments are preferred, particular embodiments appearing in the specification will not be read into the claims when the claim language is broader than the embodiments. *Electro Med. Sys., S.A. v. Cooper Life Sciences, Inc.*, 34 F.3d 1048, 1054 (Fed. Cir. 1994).

This Court’s claim construction analysis is substantially guided by the Federal Circuit’s decision in *Phillips*. In *Phillips*, the court set forth several guideposts that courts should follow when construing claims. In particular, the court reiterated that “the claims of a patent define the invention to which the patentee is entitled the right to exclude.” 415 F.3d at 1312 (quoting *Innova/Pure Water, Inc. v. Safari Water Filtration Sys., Inc.*, 381 F.3d 1111, 1115 (Fed. Cir. 2004)). To that end, the words used in a claim are generally given their ordinary and customary meaning. *Id.* The ordinary and customary meaning of a claim term “is the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention, i.e., as of the effective filing date of the patent application.” *Id.* at 1313. This principle of patent law flows naturally from the recognition that inventors are usually persons who are skilled in the field of the invention and that patents are addressed to, and intended to be read by, others skilled in the particular art. *Id.*

Despite the importance of claim terms, *Phillips* made clear that “the person of ordinary skill in the art is deemed to read the claim term not only in the context of the particular claim in which the disputed term appears, but in the context of the entire patent, including the specification.” *Id.* Although the claims themselves may provide guidance as to the meaning of particular terms, those terms are part of “a fully integrated written instrument.” *Id.* at 1315 (quoting *Markman*, 52 F.3d at 978). Thus, the *Phillips* court emphasized the specification as being the primary basis for construing the claims. *Id.* at 1314-17. As the Supreme Court stated long ago, “in case of doubt or ambiguity it is proper in all cases to refer back to the descriptive portions of the specification to aid in solving the doubt or in ascertaining the true intent and meaning of the language employed in the claims.” *Bates v. Coe*, 98 U.S. 31, 38 (1878). In addressing the role of the specification, the *Phillips* court quoted with approval its earlier

observations from *Renishaw PLC v. Marposs Societa' per Azioni*, 158 F.3d 1243, 1250 (Fed. Cir. 1998):

Ultimately, the interpretation to be given a term can only be determined and confirmed with a full understanding of what the inventors actually invented and intended to envelop with the claim. The construction that stays true to the claim language and most naturally aligns with the patent's description of the invention will be, in the end, the correct construction.

*Phillips*, 415 F.3d at 1316. Consequently, *Phillips* emphasized the important role the specification plays in the claim construction process.

The prosecution history also continues to play an important role in claim interpretation. Like the specification, the prosecution history helps to demonstrate how the inventor and the United States Patent and Trademark Office (“PTO”) understood the patent. *Id.* at 1317. Because the file history, however, “represents an ongoing negotiation between the PTO and the applicant,” it may lack the clarity of the specification and thus be less useful in claim construction proceedings. *Id.* Nevertheless, the prosecution history is intrinsic evidence that is relevant to the determination of how the inventor understood the invention and whether the inventor limited the invention during prosecution by narrowing the scope of the claims. *Id.*; see *Microsoft Corp. v. Multi-Tech Sys., Inc.*, 357 F.3d 1340, 1350 (Fed. Cir. 2004) (noting that “a patentee’s statements during prosecution, whether relied on by the examiner or not, are relevant to claim interpretation”).

*Phillips* rejected any claim construction approach that sacrificed the intrinsic record in favor of extrinsic evidence, such as dictionary definitions or expert testimony. The *en banc* court condemned the suggestion made by *Texas Digital Systems, Inc. v. Telegenix, Inc.*, 308 F.3d 1193 (Fed. Cir. 2002), that a court should discern the ordinary meaning of the claim terms (through dictionaries or otherwise) before resorting to the specification for certain limited purposes.

*Phillips*, 415 F.3d at 1319-24. According to *Phillips*, reliance on dictionary definitions at the expense of the specification had the effect of “focus[ing] the inquiry on the abstract meaning of words rather than on the meaning of claim terms within the context of the patent.” *Id.* at 1321. *Phillips* emphasized that the patent system is based on the proposition that the claims cover only the invented subject matter. *Id.*

*Phillips* does not preclude the use of dictionaries in claim construction proceedings. Instead, the court assigned dictionaries a role subordinate to the intrinsic record. In doing so, the court emphasized that claim construction issues are not resolved by any magic formula. The court did not impose any particular sequence of steps for a court to follow when it considers disputed claim language. *Id.* at 1323–25. Rather, *Phillips* held that a court must attach the appropriate weight to the intrinsic and extrinsic sources offered in support of a proposed claim construction, bearing in mind the general rule that the claims measure the scope of the patent grant.

### **III. CONSTRUCTION OF AGREED TERMS**

The Court hereby adopts the following agreed construction:

<u>Term</u>	<u>Agreed Construction</u>
“first protocol” and “second protocol” (’250 Patent)	“first protocol” and “second protocol” – The jury should be instructed that “first protocol and second protocol must be different protocols.”

(Dkt. No. 130, Jan. 6, 2016 Joint Claim Construction and Prehearing Statement Pursuant to Local Patent Rule 4-3, at 1–2.)

### **IV. CONSTRUCTION OF DISPUTED TERMS IN U.S. PATENT NO. 5,930,250**

The ’250 Patent, titled “Communication System for Interactive Services with a Packet Switching Interaction Channel over a Narrow-Band Circuit Switching Network, as well as a

Device for Application in Such a Communication System,” issued on July 27, 1999, and bears an earliest priority date of September 8, 1995. Plaintiff has asserted Claims 19, 20, and 21 of the ’250 Patent. (Dkt. No. 146 at 3.) The Abstract states:

The invention relates to a communication system (100) in which information (AV) from a server (101) is transmitted in one direction via a first communication path to a user terminal (102), such as a PC. In response to said information, the user can transmit selection information (I), such as control commands, in the form of data packets via a second communication path. According to the invention the data packets, for example ATM cells, are transmitted in the second communication path over a non-packet switching network (107), such as a telephony network. The invention further provides a device (108; 200) for receiving and routing data packets from a non-packet switching network (107), as well as a method for implementing telecommunication services in which use is made of a communication system (100; 100') of the above-mentioned kind.

The ’250 Patent has been the subject of reexamination proceedings, and the claims asserted here by Plaintiff were added during reexamination.

**A. “the data packets,” “the . . . data packets,” “said data packets,” and “these data packets”**

<b>“the data packets,” “the . . . data packets,” and “said data packets” (’250 Patent, Claims 19, 20)</b>	
<b>Plaintiff’s Proposed Construction</b>	<b>Defendants’ Proposed Construction</b>
No construction necessary.  Alternatively: “a unit of information used within a network protocol”	“the data packets issued by the user station according to the first protocol and received by the services station”

**“the data packets” and “these data packets”  
('250 Patent, Claim 21)**

<b>Plaintiff’s Proposed Construction</b>	<b>Defendants’ Proposed Construction</b>
No construction necessary.  Alternatively: “a unit of information used within a network protocol”	“the data packets issued by the services station according to the first protocol and received by the second device”

(Dkt. No. 130, Ex. A, at 1–2; Dkt. No. 146 at 3; Dkt. No. 160 at 1; Dkt. No. 165, Ex. A, at 1.)

**(1) The Parties’ Positions**

Plaintiff argues that “[d]ata packet” was a common phrase in the telecommunications field at the time of invention understood to mean ‘a unit of information used within a network protocol.’” (Dkt. No. 146, at 3.) Plaintiff also argues that Defendants’ proposed constructions are inappropriate because “[Defendants] make[] no attempt to construe ‘data packets.’ Rather, in each of its constructions, [Defendants] simply repeat[] the term and then add[] to it language already present in each claim.” (*Id.*)

Defendants respond that they “ask the Court to confirm (and thus so instruct the jury) that whenever the claims recite ‘*the* data packets’ or ‘*said* data packets,’ these are the *same* ‘data packets’ as those recited earlier in the respective claim (i.e., the ‘data packets’ that are ‘issue[d]’ by the user station (claims 19 and 20) or the services station (claim 21) according to a first protocol.’” (Dkt. No. 160 at 1–2.) In other words, Defendants argue, “[t]he claims merely track the flow of these same data packets throughout the claimed network.” (*Id.* at 2.) Alternatively, Defendants submit that “[i]f the Court is inclined to construe ‘data packet,’ then the Court should construe it as ‘unit of data of some finite size that is transmitted as a unit.’” (*Id.* at 3, n.2.)

Plaintiff replies that “each claim discloses a *second* set of data issued according to a *second* protocol, and it is this *second* set of data to which the remaining ‘data packet’ references refer.” (Dkt. No. 163 at 1.)

At the April 19, 2016 hearing, Defendants reiterated that even if different protocols are used, the data packets are the same throughout. Plaintiff responded by acknowledging that the data packets received by the service station contain the useful payload of the data packets issued by the user station and *vice versa*.

## (2) Analysis

Plaintiff submits that the *Microsoft Press Computer Dictionary* 348 (3d ed. 1997) defines “packet” as “a unit of information transmitted as a whole from one device to another on a network.” (Dkt. No. 147, Jan. 27, 2016 Rhyne Decl., at Ex. 3.) Plaintiff also submits that the *IEEE Authoritative Dictionary of IEEE Standards Terms* 787 (7th ed. 2000) includes a definition of “packet” as meaning “a unit of data of some finite-size that is transmitted as a unit.” (*Id.* at Ex. 2.)

Defendants substantially agree with Plaintiff as to what “data packets” are. (See Dkt. No. 160, Ex. 5, Feb. 11, 2016 Lanning Decl., at ¶ 21 (“I agree with the IEEE definition cited by Dr. Rhyne [(Plaintiff’s expert)], i.e., ‘a unit of data of some finite size that is transmitted as a unit.’”).)

The parties have disputed whether “data packets” must be the same data packets throughout each claim. Claims 19–21 of the ’250 Patent recite (emphasis added):

19. A communication system comprising:
  - a first communication path between at least one services station and a user station; and
    - a second communication path between the user station and the at least one services station,

wherein the user station is arranged for issuing *data packets* according to a first protocol and the at least one services station is arranged for receiving the *data packets* according to the first protocol, and

wherein the second communication path comprises:

a first network arranged for transmitting *data* according to a second protocol, a first device for receiving the *data packets* issued by the user station and for supplying said *data packets* to the first network, and

a second device for receiving said *data packets* from the first network and for routing the received *data packets* to the at least one services station via a second network arranged for transmitting data according to the first protocol,

wherein the routing of the received *data packets* by the second device comprises providing an address in the second network to the *data packets* to be transmitted to the services station, the address in the second network being provided on the basis of information received from the first network.

20. A communication system comprising:

a first communication path between at least one services station and a user station; and

a second communication path between the user station and the at least one services station,

wherein the user station is arranged for issuing *data packets* according to a first protocol and the at least one services station is arranged for receiving the *data packets* according to the first protocol, and

wherein the second communication path comprises:

a first network arranged for transmitting *data* according to a second protocol,

a first device for receiving the *data packets* issued by the user station and for supplying said *data packets* to the first network, and

a second device for receiving said *data packets* from the first network and for routing the received *data packets* to the at least one services station via a second network arranged for transmitting *data* according to the first protocol,

wherein the routing of the received *data packets* by the second device comprises modifying an address of the received *data packets* to another address.

21. The communication system according to claim 19, wherein the at least one services station issues *data packets* according to the first protocol, and the second device receives from the second network the *data packets* issued by the service station and routes these *data packets* to the user station via the first network arranged for transmitting data according to the second protocol.

The Background of the Invention states that data may be “converted” for transmission

and may be received “in various forms”:

[T]he problem arises that existing communication systems comprise networks which are not arranged for the transmission of data packets. The public telephony

network (“PSTN” or “Public Switched Telephone Network”), for example, has no provisions for the transmission of data packets. It is therefore necessary that the data packets, which are issued by the said stations, are *converted* into data which indeed can be transmitted over the telephony network. Furthermore, services stations must be arranged for the reception of data which are transmitted in various forms. This brings with it the necessity of providing different interfaces for different network services at one services station, which is expensive. It is also possible to connect the user station to the services station by means of a special network which is arranged for the transmission of data packets. Such a special network is expensive, however, and can not be applied everywhere.

’250 Patent at 1:44–60 (emphasis added). Plaintiff has noted, however, that the Summary of the Invention begins by stating that the claimed invention seeks to “eliminate” such disadvantages of the prior art:

It is an object of the invention to *eliminate the above-mentioned and other disadvantages of the prior art* and to provide a communication system which makes possible the transmission, by means of predominantly existing technical means, of user information from the services station to the user station on the one hand, and of selection information in the form of data packets from the user station to the services station on the other hand.

*Id.* at 2:10–17 (emphasis added).

Defendants’ expert opines that “[e]ven if the data packets are passed through the second communications path in different protocols, they are still the same data packets.” (Dkt. No. 160, Ex. 5, Feb. 11, 2016 Lanning Decl., at ¶ 21.)

In Claim 19, the term “data packets” in the limitation of “a first device for receiving *the data packets issued by the user station* and for supplying *said data packets* to the first network” has its antecedent basis in the recital that “the user station is arranged for *issuing data packets*.<sup>1</sup> See, e.g., *PODS, Inc. v. Porta Stor, Inc.*, 484 F.3d 1359, 1366 (Fed. Cir. 2007) (“[T]he same terms appearing in different portions of the claims should be given the same meaning.”); *Warner-Lambert Co. v. Apotex Corp.*, 316 F.3d 1348, 1356 (Fed. Cir. 2003) (“The words ‘the use’ require antecedent basis; thus, ‘the use’ refers to a specific ‘use’ rather than a previously

undefined ‘use.’’’); *Process Control Corp. v. HydReclaim Corp.*, 190 F.3d 1350, 1356 (Fed. Cir. 1999) (noting “the identical language associated with the term ‘discharge rate’ in both clauses [b] and [d], namely ‘from the common hopper to the material processing machine,’” and concluding that “the presence of that identical language clearly indicates that ‘a discharge rate’ in clause [b] is the same as ‘the discharge rate’ in clause [d].”) (square brackets in original).

Claim 20 is similar, and likewise in dependent Claim 21 the term “the second device receives from the second network *the data packets issued by the service station* and routes *these data packets* to the user station” has its antecedent basis in the recital that “the at least one services station issues data packets according to the first protocol.”

At the April 19, 2016 hearing, Plaintiff submitted that so long as the payload remains the same, there may be incidental changes to the packets, such as to the packet headers, such that the data packets recited in the claims might not necessarily be identical throughout a particular implementation. Ultimately, however, any dispute as to whether particular data packets are actually the same as other data packets is a question of infringement rather than a question of claim construction. *See PPG Indus. v. Guardian Indus. Corp.*, 156 F.3d 1351, 1355 (Fed. Cir. 1998) (“[A]fter the court has defined the claim with whatever specificity and precision is warranted by the language of the claim and the evidence bearing on the proper construction, the task of determining whether the construed claim reads on the accused product is for the finder of fact.”); *see also EON Corp. IP Holdings LLC v. Silver Springs Networks, Inc.*, 815 F.3d 1314, 1319 (Fed. Cir. 2016) (citing *PPG*).

Accordingly, the Court hereby construes the disputed terms as set forth in the following chart:

<u>Term</u>	<u>Construction</u>
“the data packets,” “the . . . data packets,” and “said data packets” (’250 Patent, Claims 19, 20)	“the data packets issued by the user station according to the first protocol”
“the data packets” and “these data packets” (’250 Patent, Claim 21)	“the data packets issued by the services station according to the first protocol”

#### B. “user station”

<b>Plaintiff’s Proposed Construction</b>	<b>Defendants’ Proposed Construction</b>
No construction necessary.  Alternatively: “a terminal”	“a personal computer or workstation”

(Dkt. No. 130, Ex. A, at 3; Dkt. No. 146, at 5.) The parties submit that this term appears in Claims 19-21 of the ’250 Patent. (Dkt. No. 130, Ex. A, at 3.)

Plaintiff has argued that “user station” is a “common phrase” that need not be construed but, alternatively, “should be construed to mean ‘a terminal’—the definition used throughout the patent.” (Dkt. No. 146 at 5.) Plaintiff has also argued that Defendants’ proposed construction would “exclude[] identified embodiments.” *Id.* As to the United States Patent and Trademark Office’s (“PTO’s”) interpretation during reexamination, Plaintiff has urged that “because the Examiner’s interpretation would exclude identified embodiments, it plainly is incorrect.” (*Id.* at 6.)

Defendants have responded that they “withdraw[] this term from the list of terms to be construed, and agrees with [Plaintiff] that no construction is necessary.” (Dkt. No. 160 at 3, n.3.)

Accordingly, the Court hereby construes “**user station**” to have its **plain meaning**.

**C. “routing the received data packets,” “routing of the received data packets,” and “routes”**

<b>“routing the received data packets” ('250 Patent, Claims 19, 20)</b>	
<b>Plaintiff’s Proposed Construction</b>	<b>Defendants’ Proposed Construction</b>
No construction necessary.  Alternatively: “selecting an appropriate path for the received data packets”	“selecting the correct circuit path for the received data packets”, <sup>1</sup>
<b>“routing of the received data packets” ('250 Patent, Claims 19, 20)</b>	
<b>Plaintiff’s Proposed Construction</b>	<b>Defendants’ Proposed Construction</b>
No construction necessary.  Alternatively: “selection of an appropriate path for the received data packets”	“selection of the correct circuit path for the received data packets” <sup>2</sup>
<b>“routes” ('250 Patent, Claim 21)</b>	
<b>Plaintiff’s Proposed Construction</b>	<b>Defendants’ Proposed Construction</b>
No construction necessary.  Alternatively: “selects an appropriate path for”	“selects the correct circuit path for” <sup>3</sup>

(Dkt. No. 130, Ex. A, at 4; Dkt. No. 146, at 6; Dkt. No. 160, at 3–4; Dkt. No. 165, Ex. A, at 3–4 & 6.)

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<sup>1</sup> Defendants previously proposed: “selecting the correct transmission path for the received data packets.” (Dkt. No. 130, Ex. A, at 4.)

<sup>2</sup> Defendants previously proposed: “selection of the correct transmission path for the received data packets.” (Dkt. No. 130, Ex. A, at 4.)

<sup>3</sup> Defendants previously proposed: “selects the correct transmission path for.” (Dkt. No. 130, Ex. A, at 4.)

### (1) The Parties' Positions

Plaintiff argues that “route” is a common term, and “the claims explicitly contemplate that there may exist *more than one* recipient for the routed data, which requires that there be *more than one* correct path.” (Dkt. No. 146 at 7.) Plaintiff also argues that Defendants’ reliance upon the PTO’s interpretation during reexamination is misplaced because “an Examiner’s interpretation has no bearing on this Court’s analysis—particularly when it excludes an embodiment.” (*Id.*)

Defendants respond that whereas they propose the constructions applied by the PTO during reexamination, Plaintiff proposes constructions that are even broader than those that the PTO applied under its “broadest reasonable construction” standard. (Dkt. No. 160 at 4.) Defendants also argue that Plaintiff has failed to point specifically to any disclosed embodiment purportedly excluded by Defendants’ proposed constructions. (*Id.*)

Plaintiff replies that “an Examiner’s interpretation has no bearing on this Court’s construction—particular[ly] when, as here, it (1) incorporates a ‘circuit’ limitation not required by the patent and (2) runs counter to the claim language itself, which contemplates that there may be one or more services station to which the data may be routed—a fact that demonstrates that, in such embodiments, there exists more than one appropriate path.” (Dkt. No. 163 at 2.)

At the April 19, 2016 hearing, the parties submitted these terms on the briefing without oral argument.

### (2) Analysis

During reexamination, the examiner cited a technical dictionary that defines “routing” to mean “[t]he process of selecting the correct circuit path for a message,” and the examiner “relie[d] upon the Broadest Reasonable Interpretation of the term routing as ‘a process

performed by an intermediate device on a communications network that expedites message delivery by selecting the correct circuit path for a message.”” (Dkt. No. 160, Ex. 6, May 22, 2013 Office Action, at 7 & 15.)

On one hand, the ’250 Patent is titled with reference to a “circuit switching network.” Further, the specification repeatedly refers to circuit switching. *See, e.g.*, ’250 Patent at 4:36–37, 6:57, 7:23–24, 8:16–17, 8:24–25 & 8:56–57. On the other hand, the claims at issue contain no reference to circuit switching or circuit switched networks. Likewise, Defendants have not identified any claim language or disclaimer that would warrant requiring a single “correct” path as opposed to potentially multiple appropriate paths.

On balance, use of a “circuit path” and use of a single “correct” path are specific features of particular disclosed embodiments that should not be imported into the claims. *See Phillips*, 415 F.3d at 1323. The PTO’s interpretation to the contrary is unpersuasive here. *See SRAM Corp. v. AD-II Eng’g, Inc.*, 465 F.3d 1351, 1359 (Fed. Cir. 2006) (“declin[ing] to adopt the PTO’s construction” and noting that “paradoxically in this case, the PTO construed the claim narrowly, rather than broadly”).

The Court therefore hereby expressly rejects Defendants’ proposed constructions. No further construction is necessary. *See U.S. Surgical Corp. v. Ethicon, Inc.*, 103 F.3d 1554, 1568 (Fed. Cir. 1997) (“Claim construction is a matter of resolution of disputed meanings and technical scope, to clarify and when necessary to explain what the patentee covered by the claims, for use in the determination of infringement. It is not an obligatory exercise in redundancy.”); *see also O2 Micro Int’l Ltd. v. Beyond Innovation Tech. Co.*, 521 F.3d 1351, 1362 (Fed. Cir. 2008) (“[D]istrict courts are not (and should not be) required to construe every limitation present in a patent’s asserted claims.”); *Finjan, Inc. v. Secure Computing Corp.*, 626

F.3d 1197, 1207 (Fed. Cir. 2010) (“Unlike *O2 Micro*, where the court failed to resolve the parties’ quarrel, the district court rejected Defendants’ construction.”); *ActiveVideo Networks, Inc. v. Verizon Commcn’s, Inc.*, 694 F.3d 1312, 1326 (Fed. Cir. 2012); *Summit 6, LLC v. Samsung Elecs. Co., Ltd.*, 802 F.3d 1283, 1291 (Fed. Cir. 2015).

Accordingly, the Court hereby construes “**routing the received data packets**,” “**routing of the received data packets**,” and “**routes**” to have their **plain meaning**.

#### D. “first communication path”

Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
No construction necessary.  Alternatively: “a first pathway for communicating data”	“uni-directional communication channel”

(Dkt. No. 130, Ex. A, at 4; Dkt. No. 146, at 8; Dkt. No. 160, at 4; Dkt. No. 165, Ex. A, at 1.) The parties submit that this term appears in Claims 19 and 20 of the ’250 Patent. (Dkt. No. 130, Ex. A, at 4.)

##### (1) The Parties’ Positions

Plaintiff argues that Defendants’ proposed construction “is particularly improper here given that the specification specifically teaches that, while a first communication path *may* be uni-directional in some cases, it is not limited to being uni-directional *in every case*.” (Dkt. No. 146 at 8.)

Defendants respond that “the claimed invention is directed to providing bidirectional communication using a *second* communication path, where such communication was not otherwise possible over the first path.” (Dkt. No. 160 at 5.)

Plaintiff replies that “the patent does not require the first path to be uni-directional; it simply discloses that it may be—a point that, contrary to what [Defendants] claim[], is not negated by the patent’s disclosure of a second path.” (Dkt. No. 163 at 3.)

At the April 19, 2016 hearing, Plaintiff argued that the first and second communication paths could differ in ways other than directionality. For example, Plaintiff suggested that different pathways could have different bandwidth. Defendants responded by reiterating that, in the only disclosed embodiments, there is no need for the second communication path unless the first communication path is unidirectional.

## (2) Analysis

On one hand, the specification contrasts a first communication path with a second communication path and states that the second communication path can be bi-directional:

As is apparent from FIG. 1, there are in fact two parallel networks present for the two (outward and returning respectively) communication paths: one network for satellite communication on the first (outward) communication path, and one network for telephony on the second (returning) communication path. Apart from that, the *second communication path*, which forms a so-called interaction channel, can be suitable for information transmission in *two directions*. *Bi-directional* traffic can be advantageous, for example, for user identification in case of orders and/or payments.

<sup>’250 Patent at 4:17–27 (emphasis added); see id. at Abstract (“information . . . is transmitted in one direction via a first communication path to a user terminal”); see also id. at 3:34–37 & 6:10–13 (similar); id. at Figs. 1 & 2 (illustrating uni-directional arrows). Likewise, the specification further discloses:</sup>

In the example shown, the transmission trajectory 104 comprises a first antenna 111, a second antenna 112 and a communication satellite 110. In the case shown, the transmission trajectory 104 is *uni-directional*, so that a user of the user station 102 can not transmit any information from said user station via the transmission trajectory 104 to the services station 101.

*Id.* at 3:49–55 (emphasis added).

On the other hand, the specification states that the first communication path is unidirectional “in most cases”:

The first communication path can comprise a satellite trajectory and/or a cable network, which *in most cases* only enables transmission in one direction and is therefore purely distributive. The first communication path can furthermore comprise a packet switching network.

’250 Patent at 3:3–7 (emphasis added). Also of note, this disclosure refers to a “packet switching network,” and Plaintiff’s expert opines: “In my opinion it would have been well understood in the telecommunications field in 1996 that a packet switching network can allow for bi-directional data traffic.” (Dkt. No. 147, Jan. 27, 2016 Rhyne Decl., at ¶ 21.) Defendants’ expert opines that merely “compris[ing] a packet switching network” does not necessarily mean that the first communication path as a whole is bi-directional. (Dkt. No. 160, Ex. 5, Feb. 11, 2016 Lanning Decl., at ¶ 30.) Nonetheless, the disclosure of a packet switching network with reference to the first communication path is probative.

On balance, Defendants’ arguments, which primarily challenge the sufficiency of the disclosure, may perhaps bear upon the statutory requirements of enablement or written description but do not warrant importing a specific feature from particular embodiments disclosed in the specification. *See Phillips*, 415 F.3d at 1323. The Court therefore hereby expressly rejects Defendants’ proposed construction.

Accordingly, the Court hereby construes “**first communication path**” to mean “**a first pathway for communicating data**.”

## E. “first device”

Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
<p>Defendant[s] contend[] that this phrase should be construed pursuant to 35 U.S.C. § 112, ¶ 6. [Plaintiff] disagrees; 35 U.S.C. § 112, ¶ 6 does not apply, and no construction is necessary.</p> <p>Alternatively: “a first network interface”</p>	<p>Interpreted under 35 U.S.C. § 112, ¶ 6</p> <p>Function: “receiving data packets issued by the user station and supplying the data packets to the first network”</p> <p>Structure: “structure arranged as shown in Fig. 3 including a control unit, a modulator/demodulator, a data converter, a first buffer, a second buffer, a header detector, a counter, an address multiplexer, an input/output multiplexer, and a memory; or equivalent structure”<sup>4</sup></p>

(Dkt. No. 130, Ex. A, at 5; Dkt. No. 146, at 9; Dkt. No. 160 at 7; Dkt. No. 165, Ex. A, at 2.) The parties submit that this term appears in Claims 19 and 20 of the ’250 Patent. (Dkt. No. 130, Ex. A, at 5.)

### (1) The Parties’ Positions

Plaintiff argues that Defendants cannot overcome the presumption against means-plus-function treatment because “one of ordinary skill would understand ‘first device’ to mean a ‘network interface’—particular network structure well known to those in the art.” (Dkt. No. 146 at 10.) Also, Plaintiff submits that the specification “disclos[es] additional structure that may allow a ‘first device’ to function as a ‘network interface.’” (*Id.* at 11.)

Defendants respond that this term is “in a format consistent with traditional means-plus-function claim limitations,” and “device” is a “nonce” word that operates as a substitute for the word “means.” (Dkt. No. 160 at 8 (citing *Williamson v. Citrix Online, LLC*, 792 F.3d 1339,

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<sup>4</sup> Defendants previously proposed: “Fig. 3 and related description.” (Dkt. No. 130, Ex. A, at 5.)

1350 (Fed. Cir. 2015)).) Defendants also argue that “whether ‘network interface’ is known in the art is of no consequence because the claim instead recites a ‘device’—which can mean anything.” (Dkt. No. 160 at 9.)

Plaintiff replies that the specification discloses a “lengthy list of specific, exemplary structure.” (Dkt. No. 163 at 3–4 (emphasis omitted).)

At the April 19, 2016 hearing, Plaintiff conceded that “first device” is a means-plus-function term governed by 35 U.S.C. § 112, ¶ 6, and Plaintiff had no objection to the function proposed by Defendants. (*See also* Dkt. No. 183, Ex. D, Apr. 18, 2016 Rhyne Decl. at ¶ 5.) Plaintiff proposed that the corresponding structure is “a packet adapter that comprises a buffer for data packets, a parallel-serial converter, and a modulator, or equivalent structures.” (*See also id.*) In response, Defendants disagreed with Plaintiff’s proposal but nonetheless acknowledged that the structure for the “first device” need not necessarily be the same as the structure for the “second device.”

## (2) Analysis

Title 35 U.S.C. § 112, ¶ 6 provides: “An element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof.”

As Plaintiff conceded at the April 19, 2016 hearing, “first device” is a means-plus-function term governed by 35 U.S.C. § 112, ¶ 6. Also, Plaintiff has not disputed the claimed function, which Defendants propose is “receiving data packets issued by the user station and supplying the data packets to the first network.” (*See also* Dkt. No. 183, Ex. D, April 18, 2016 Rhyne Decl., at ¶ 5.)

As to the corresponding structure, the specification discloses:

[T]he first device 106, which supplies data packets to the network, can be embodied as a plug-in card for application in the user station.

\* \* \*

In the communication systems of the FIGS. 1 and 2, a device 106 is applied for the transmission of data packets from the user station 102 to the network 107. Such a device can comprise a buffer for data packets, a parallel/serial converter and a modulator. If the device is to be suitable for bi-directional traffic, a demodulator must also be present. The device 106 can be further provided with means for the issuing of dialling information, such as a DTMF generator, in combination with a suitable memory for the storage of dialling information. This dialling information is used for the dialling of an access number (for PSTN: a telephone number) of a services station. If required the device can be further provided with means for the entry of dialling information, such as a keyboard or a link with the user station for the entry of dialling information in an electronic manner.

'250 Patent at 3:63–66 & 6:59–7:7; *see id.* at 4:30–32 (“device (packet adaptor or PA)”).

On balance, the specification links the function of the “first device”—“receiving data packets issued by the user station and supplying the data packets to the first network”—to the structures of a buffer for data packets, a parallel/serial converter, and a modulator.

The additional structures set forth above are not clearly linked to the claimed function and therefore are not included in the corresponding structure for the “first device.” *See, e.g., Northrop Grumman Corp. v. Intel Corp.*, 325 F.3d 1346, 1352 (Fed. Cir. 2003) (“Under section 112, paragraph 6, structure disclosed in the specification is ‘corresponding’ structure only if the specification or the prosecution history clearly links or associates that structure to the function recited in the claim. . . . A court may not import into the claim features that are unnecessary to perform the claimed function.”) (citations and internal quotation marks omitted). Further, Defendants have not justified limiting the “first device” to all of the structure of “second device 108,” which is set forth as “device 200” in Figure 3 of the ’250 Patent and the accompanying

description. *See* '250 Patent at 7:8–20 (“The device of FIG. 3 could, *if required*, also be applied as device 106.”) (emphasis added). Indeed, Defendants acknowledged at the April 19, 2016 hearing that the “first device” need not necessarily have the same corresponding structure as the “second device.” The Court thus rejects Defendants’ proposal of limiting the “first device” to the structure shown in Figure 3.

The Court finds that “**first device**” is a means-plus-function term, the claimed function is “**receiving data packets issued by the user station and supplying the data packets to the first network,**” and the corresponding structure is “**device 106, including a buffer for data packets, a parallel/serial converter, and a modulator; and equivalents thereof.**”

#### F. “second device”

Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
<p>Defendant[s] contend[] that this phrase should be construed pursuant to 35 U.S.C. § 112, ¶ 6. [Plaintiff] disagrees; 35 U.S.C. §112, ¶ 6 does not apply, and no construction is necessary.</p> <p>Alternatively: “a second network interface”</p>	<p>Interpreted under 35 U.S.C. § 112, ¶ 6.</p> <p>Function for Claims 19, 20: “receiving said data packets from the first network and routing the received data packets to the at least one services station via a second network arranged for transmitting data according to the first protocol”</p> <p>Function for Claim 21: “receives from the second network the data packets issued by the service station and routes these data packets to the user station via the first network arranged for transmitting data according to the second protocol”</p> <p>Structure: “structure arranged as shown in Fig. 3 including a control unit, a modulator/demodulator, a data converter, a first buffer, a second buffer, a header detector, a counter, an address multiplexer, an input/output multiplexer, and a memory; or equivalent structure”<sup>5</sup></p>

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<sup>5</sup> Defendants previously proposed: Function: “receiving said data packets from the first network and routing the received data packets to the at least one services station via a second network arranged for transmitting data according to the first protocol”; and Structure: “Fig. 3 and related description.” (Dkt. No. 130, Ex. A, at 5–6.)

(Dkt. No. 130, Ex. A, at 5–6; Dkt. No. 146 at 11; Dkt. No. 160 at 7; Dkt. No. 165, Ex. A, at 2–3.)

The parties submit that this term appears in Claims 19–21 of the ’250 Patent. (Dkt. No. 130, Ex. A, at 5; Dkt. No. 165, Ex. A, at 2–3.)

(1) The Parties’ Positions

Plaintiff argues: “The patent discloses that the second device is positioned as a link or interface between the first and second networks; accordingly, as with a ‘first device,’ a person of ordinary skill in the art would understand a ‘second device’ to refer to a ‘network interface’—particular structure well known in the art.” (Dkt. No. 146 at 12.)

Defendants respond as to this term together with the term “first device,” which is addressed above. (*See* Dkt. No. 160 at 7–9.) Plaintiff replies similarly. (*See* Dkt. No. 163 at 3–4.)

At the April 19, 2016 hearing, Plaintiff conceded that “second device” is a means-plus-function term governed by 35 U.S.C. § 112, ¶ 6, and Plaintiff had no objection to the function proposed by Defendants. (*See also* Dkt. No. 183, Ex. D, Apr. 18, 2016 Rhyne Decl., at ¶ 7.) Plaintiff proposed that the corresponding structure is “an interworking unit or gateway, or equivalent structures.” (*See also id.*) Defendants propose the same structure for the “second device” as it proposed for the “first device.” (*See* Dkt. No. 160 at 7.)

(2) Analysis

As to the corresponding structure, the specification discloses:

The *second device 108*, which receives data packets from the network 107 and transmits said data packets to the local network 103, will be further explained later on the basis of FIG. 3.

\* \* \*

A device for the bi-directional transmission of information which is a suitable embodiment of the above-mentioned *second device 108 will now be explained with reference to FIG. 3*. The *device of FIG. 3* could, if required, also be applied as device 106 (cf. FIG. 1).

The *device 200 shown diagrammatically and by way of example in FIG. 3* comprises a control unit 201, a modulator/demodulator 202, a data converter 203, a first buffer 204, a second buffer 205, a header detector 206, a counter 207, an address multiplexer 208, an input/output multiplexer 209, and a memory 210 (in which a switching table may be stored). Data paths are indicated by double lines, control connections by single lines.

'250 Patent at 3:66–4:2 & 7:8–20 (emphasis added). The specification thus discloses that the corresponding structure for the claimed function is the “device 200” shown in Figure 3. Because this disclosure refers to the entirety of the device 200 shown in Figure 3, that entire structure is corresponding structure for this means-plus-function term.

Accordingly, the Court hereby finds that “**second device**” is a means-plus-function term, the claimed function for Claims 19 and 20 is “**receiving said data packets from the first network and routing the received data packets to the at least one services station via a second network arranged for transmitting data according to the first protocol,**” the claimed function for Claim 21 is “**receives from the second network the data packets issued by the service station and routes these data packets to the user station via the first network arranged for transmitting data according to the second protocol,**” and the corresponding structure is “**device 200 shown in Figure 3 and described in column 7, lines 13–20; and equivalents thereof.**”

## V. CONSTRUCTION OF DISPUTED TERMS IN U.S. PATENT NO. 6,212,662

The '662 Patent, titled “Method and Devices for the Transmission of Data with Transmission Error Checking,” issued on April 3, 2001, and bears an earliest priority date of

June 26, 1996. Plaintiff has asserted Claims 1–4 of the '662 Patent. (Dkt. No. 146, at 13.) The Abstract states:

The invention concerns a method and devices for the detection of errors, in particular transmission errors, in data streams and/or data packets. In order to better detect systematic errors in particular, the error detection function according to the invention is variable. The detection function is varied on the basis of the time and/or the data themselves, for example by assigning an individual variation value to each index (packet index), effectively varying the data themselves. The invention is particularly suitable for application to compressed data streams.

#### A. Preamble of Claim 1

Plaintiff's Proposed Construction	Defendants' Proposed Construction
This is a non-limiting preamble and needs no construction.	The preamble is a limitation.

(Dkt. No. 130, Ex. A, at 7; Dkt. No. 146, at 13; Dkt. No. 165, Ex. B, at 1.)

##### (1) The Parties' Positions

Plaintiff argues that “[t]he preamble to Claim 1 simply states the ‘purpose or intended use for the invention,’” “[a]nd while the preamble also references some structure, that is not enough to render it limiting.” (Dkt. No. 146, at 14.)

Defendants respond that the preamble is limiting because “the elements of the preamble are explicitly referred to by other limitations in the body of the claim, providing antecedent basis for these elements.” (Dkt. No. 160, at 10.)

Plaintiff replies as to the preamble together with the term “producing error checking,” which is addressed below. (Dkt. No. 163, at 4.)

At the April 19, 2016 hearing, Plaintiff acknowledged that the preamble language relied upon during prosecution is limiting, but Plaintiff maintained that the phrase “for producing error checking” is not limiting.

## (2) Analysis

Claim 1 of the '662 Patent recites:

1. A device for producing error checking based on original data provided in *blocks with each block having plural bits in a particular ordered sequence*, comprising:

a generating device configured to generate check data; and

a varying device configured to vary original data prior to supplying said original data to the generating device as varied data;

wherein said varying device includes a permutating device configured to perform a permutation of bit position relative to *said particular ordered sequence* for at least some of *the bits* in each of *said blocks* making up said original data without reordering any blocks of original data.

Here, because “said particular ordered sequence,” “the bits,” and “said blocks” in the body of Claim 1 have their antecedent basis in the preamble phrase “original data provided in blocks with each block having plural bits in a particular ordered sequence,” the preamble is limiting in that regard. *See Eaton Corp. v. Rockwell Int'l Corp.*, 323 F.3d 1332, 1339 (Fed. Cir. 2003) (“When limitations in the body of the claim rely upon and derive antecedent basis from the preamble, then the preamble may act as a necessary component of the claimed invention.”).

Defendants have not demonstrated, however, that the entirety of the preamble is limiting. *See TomTom, Inc. v. Adolph*, 790 F.3d 1315, 1323 (Fed. Cir. 2015) (“That [a] phrase in the preamble . . . provides a necessary structure for [the] claim . . . does not necessarily convert the entire preamble into a limitation, particularly one that only states the intended use of the invention.”). Unlike *Blue Calypso*, cited here by Defendants, the preamble language relied upon for antecedent basis is not “intertwined with the entireties of the preambles such that the preambles cannot be parsed into limiting and non-limiting portions.” *See Blue Calypso, Inc. v. Groupon, Inc.*, 93 F. Supp. 3d 575, 594 (E.D. Tex. 2015).

Finally, Defendants have cited the prosecution history, but the cited portions pertain to the “particular ordered sequence,” “bits,” and “blocks” that are indeed limiting because they

appear in the body of the claim. (See Dkt. No. 160, Ex. 10, June 1, 2000 Amendment, at 1–2 & 4; *Id.* Ex. 11, Nov. 1, 2000 Amendment, at 1, 3 & 5.)

Accordingly, the Court hereby finds that the preamble of **Claim 1 of the '662 Patent is limiting only as to “original data provided in blocks with each block having plural bits in a particular ordered sequence.”**

#### B. “producing error checking”

Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
No construction necessary – the term is found only in a non-limiting preamble.  Alternatively: “generating supplementary data for use in checking errors”	“generating supplementary data for use in checking for transmission errors”

(Dkt. No. 130, Ex. A, at 7; Dkt. No. 146, at 14; Dkt. No. 160 at 11; Dkt. No. 165, Ex. B, at 1.)

The parties submit that this term appears in Claim 1 of the '662 Patent. (Dkt. No. 130, Ex. A, at 7.)

As set forth above as to the preamble of Claim 1 of the '662 Patent as a whole, the preamble phrase “producing error checking” merely sets forth an intended purpose and is not limiting. *See TomTom*, 790 F.3d at 1323 (“That [a] phrase in the preamble . . . provides a necessary structure for [the] claim . . . does not necessarily convert the entire preamble into a limitation, particularly one that only states the intended use of the invention.”); *see also E-Pass Techs., Inc. v. 3Com Corp.*, 343 F.3d 1364, 1370 (Fed. Cir. 2003) (“An invention may possess a number of advantages or purposes, and there is no requirement that every claim directed to that invention be limited to encompass all of them.”).

The Court thus finds that the preamble term “**producing error checking**” is not a limitation.

### C. “permutation”

Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
No construction necessary.	“reordering of members of a given set”
Alternatively: “reordering”	

(Dkt. No. 130, Ex. A, at 6; Dkt. No. 146 at 16; Dkt. No. 160 at 13; Dkt. No. 165, Ex. B, at 2.)

The parties submit that this term appears in Claims 1–4 of the ’662 Patent. (Dkt. No. 130, Ex. A, at 6.)

#### (1) The Parties’ Positions

Plaintiff argues that “permutation” is “a common mathematical term that needs no construction.” (Dkt. No. 146 at 16.) Plaintiff also argues that Defendants’ proposed construction should be rejected because “Claim 1 *already identifies* the members of the given set at issue: the ‘bit position’ of ‘at least some of the bits’ of the ‘original data blocks’ described in Claim 1.’” (*Id.*) Plaintiff concludes that “[Defendants’] construction simply confuses the claim language already present with redundant, unnecessary, and more general language—reason enough to reject it.” (*Id.*) Alternatively, Plaintiff argues that, “[i]f construed, ‘permutation’ should be defined simply to mean a ‘reordering.’” (*Id.*)

Defendants respond that their proposed construction “is taken directly from the prosecution history.” (Dkt. No. 160 at 13.)

Plaintiff replies that “for all of its hyperbole, [Defendants] offer[] no explanation as to how [Plaintiff’s] desire to avoid adding unnecessary, redundant language to each claim represents an attempt to broaden its scope.” (Dkt. No. 163 at 4.)

At the April 19, 2016 hearing, the parties submitted this term on the briefing without oral argument.

## (2) Analysis

Defendants argue that construction is necessary because the term “permutation” appears in Claims 2-4 of the ’662 Patent without the additional explanatory language that appears in Claim 1. (Dkt. No. 160 at 14.) Claims 2-4, however, all depend from Claim 1 and therefore include all of the limitations of Claim 1. Indeed, Claims 2-4 recite “the permutation,” thus referring back to the permutation recited in Claim 1.

Nonetheless, in the prosecution history the patentee stated that “the meaning of the term ‘permutation’ is the usual mathematical one involving a *reordering of members of a given set.*” (Dkt. No. 160, Ex. 10, June 1, 2000 Amendment, at 2 (emphasis added).) The patentee also similarly stated that “permutating is a well established term handed down from mathematics which has the clear meaning of *altering the arrangement of a finite number of objects within a group.*” (*Id.* at 3 (emphasis added).)

The patentees’ definitive statements should be given effect in the Court’s construction of “permutation.” *See Typhoon Touch Techs., Inc. v. Dell, Inc.*, 659 F.3d 1376, 1381 (Fed. Cir. 2011) (“The patentee is bound by representations made and actions that were taken in order to obtain the patent.”); *see also Springs Window Fashions LP v. Novo Indus., L.P.*, 323 F.3d 989, 995 (Fed. Cir. 2003) (“The public notice function of a patent and its prosecution history requires that a patentee be held to what he declares during the prosecution of his patent.”).

Accordingly, the Court hereby construes “**permutation**” to mean “**reordering of members of a given set.**”

#### D. “modify the permutation in time”

Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
No construction necessary.  Alternatively: “change the permutation from time to time”	“change the permutation as a function of time”

(Dkt. No. 130, Ex. A, at 8–9; Dkt. No. 146 at 16; Dkt. No. 160 at 14; Dkt. No. 165, Ex. B, at 2.)

The parties submit that this term appears in Claim 2 of the ’662 Patent. (Dkt. No. 130, Ex. A, at 8.)

##### (1) The Parties’ Positions

Plaintiff argues that Defendants’ proposal is too narrow because:

Changing the permutation “as a function of time” implies a causal relationship in which change can occur only at set times or intervals—a requirement that conflicts with the specification’s teaching that the invention encompasses, without any mention of a time requirement, both (1) devices that make “continual[]” changes, . . . and (2) those that make a finite number of changes, . . . .

(Dkt. No. 146, at 17 (citing ’662 Patent at 5:31–40, 5:58–65 & 6:2–4).) Plaintiff urges that “the specification teaches that . . . the permutation is not limited to changing ‘as a function of time’” but rather could, for example, be dependent upon the user data. (*Id.* at 18 (citing ’662 Patent at 4:46–5:2).)

Defendants respond that the specification explains that a change in time causes the change in the permutation, rather than the permutation being incidentally changed for some other reason “from time to time” as Plaintiff has proposed. (Dkt. No. 160, at 14–15.) Further, Defendants argue, “[c]ontinually applying the same permutation does not constitute ‘modifying the permutation in time.’” (*Id.* at 15.) Defendants conclude that “neither multiple permutations nor the addition of (pseudo) random numbers involve ‘modifying the permutation in time.’” (*Id.* at 16.)

Plaintiff replies that “to [the] extent the patent discloses any ‘time-dependent checking function’ at all, it makes clear that this function also is based *on the data*—not on a ‘function of time,’” and “even when discussing specific embodiments, the patent teaches that *the data* remains the chief varying consideration.” (Dkt. No. 163 at 5.)

At the April 19, 2016 hearing, Defendants reiterated that the change in the permutation must depend in some way upon time rather than merely changing over the course of time based on something other than time. Plaintiff responded that restricting the change to being based on time would bear no relation to the purpose of the invention.

## (2) Analysis

Plaintiff argues that Claim 3 weighs against Defendants’ proposed interpretation because Claim 3 recites modifying the permutation “based on the original data.” (Dkt. No. 163 at 5.) No inconsistency is apparent, however, because whereas Claim 2 requires that the permutation must be modified in time, Claim 3 recites an *additional* limitation that the permutation also must be modified depending upon the data.

Nonetheless, the specification discloses that a value can be varied “preferably under influence of the data” and “can thus . . . be varied every n bits.” ’662 Patent at 3:10–15. The specification also discloses: “Dependent upon the time, but preferably dependent upon the user data D (or D’), a new random number is continually generated.” *Id.* at 4:49–51.

Further, the disputed term refers to modifying “*in time*,” not necessarily *based on* time. Likewise, the disclosures regarding a “time-dependent checking function” and a “time indication” can be fairly read as referring to changes that occur *with* the passing of time rather than changes *based on* time. *See id.* at 2:54–57 & 4:61–66; *see also id.* at 2:42–47 (“the detection probability of systematic errors in particular increases considerably, since (erroneous)

data are always *varied in time*, and are thus effectively checked by a different function *each time.*” (emphasis added).

Accordingly, the Court hereby construes “**modify the permutation in time**” to mean “**change the permutation from time to time.**”

#### E. “generating device configured to generate check data”

Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
“device that generates supplementary data from input data”	“device which generates supplementary data for use in checking for transmission errors”

(Dkt. No. 130, Ex. A, at 9; Dkt. No. 146, at 18; Dkt. No. 160, at 11; Dkt. No. 165, Ex. B, at 1.)

The parties submit that this term appears in Claim 1 of the ’662 Patent. (Dkt. No. 130, Ex. A, at 9.)

Plaintiff argues that Defendants’ proposed construction would improperly “limit the invention to just one of its stated purposes,” and “the specification expressly teaches that the invention may be used to check for *other kinds of errors.*” (Dkt. No. 146 at 19 (citing ’662 Patent at 6:48–57).)

Defendants respond as to this term together with the term “producing error checking,” which is addressed above. (See Dkt. No. 160 at 11–13.) Defendants argue that Plaintiff’s proposal should be rejected because “[c]onstruing ‘generating device’ to be based on ‘input data,’ rather than the ‘varied data,’ that is expressly required by the claim will impermissibly broaden the scope of the claim and/or render it indefinite.” (*Id.* at 13.)

Plaintiff replies by reiterating its opening arguments and by urging that “the fact that the inventor anticipated that the invention may be used in a particular manner does not limit the scope to that narrow context.” (Dkt. No. 163 at 6 (quoting *Brookhill-Wilk I, LLC v. Intuitive Surgical, Inc.*, 334 F.3d 1294, 1301 (Fed. Cir. 2003))).

At the April 19, 2016 hearing, the parties stated they agreed that the Court should adopt Defendants' proposal except as to the word "transmission."

Accordingly, the Court hereby construes "**generating device configured to generate check data**" to mean "**device which generates supplementary data for use in checking for errors.**"

## **VI. CONSTRUCTION OF DISPUTED TERMS IN U.S. PATENT NO. 8,886,772**

The '772 Patent, titled "Method and System for Remote Data Management," issued on November 11, 2014, and bears an earliest priority date of July 31, 2008. Plaintiff has asserted Claims 1–2 and 8–15 of the '772 Patent. (Dkt. No. 146 at 19.) The Abstract states:

A system for remote device management includes in a network an auto-configuration server managing device, at least one database, and a plurality of auto-configuration servers. The auto-configuration server managing device and the database are coupled in a communicative connection. The database holds information for identification of electronic devices. The auto-configuration server managing device is arranged for communication with a manageable electronic device over the network. The auto-configuration server manager is further being arranged for:

receiving a request from the manageable electronic device for configuration data,

determining an identification of the manageable electronic device by comparing the request with the information for identification of electronic devices of the database,

determining an identification of an auto-configuration server from the plurality of auto-configuration servers in accordance with the identification of the manageable electronic device.

### **A. Preambles of Claims 10, 12, and 15**

<b>Plaintiff's Proposed Construction</b>	<b>Defendants' Proposed Construction</b>
The preamble is non-limiting and needs no construction.	The preamble is a limitation

(Dkt. No. 130, Ex. A, at 9; Dkt. No. 146, at 20; Dkt. No. 160, at 17–18; Dkt. No. 165, Ex. C, at 5–6, 8–9 & 12–13.)

### (1) The Parties' Positions

Plaintiff argues: “It is unclear to [Plaintiff] what particular aspects of each preamble [Defendants] claim[] should be construed as limiting. At a minimum, however, those portions of the preamble to Claims 10, 12, and 15 that simply describe a purpose or intended use of the disclosed invention are not.” (Dkt. No. 146 at 20.)

Defendants respond that “[t]he preambles of claims 10, 12, and 15 all breathe life into the claims because each of these preambles describe not only the intended purpose of the invention but also detail specific components of the invention and how they are disposed in relation to each other.” (Dkt. No. 160 at 17.) “Moreover,” Defendants argue, “these preambles each contain antecedent basis for further elements in the body of the claim which refer back to the preambles.” (*Id.*)

Plaintiff replies by reiterating that “those *portions* of the preambles to Claims 10, 12, and 15 that simply describe a purpose or intended use of the disclosed invention remain non-limiting.” (Dkt. No. 163 at 6.)

At the April 19, 2016 hearing, the parties submitted these terms on the briefing without oral argument.

### (2) Analysis

The preambles of Claims 10, 12, and 15 of the ’772 Patent contain the antecedent basis for numerous limitations that appear in the bodies of the claims. Plaintiff relies upon *TomTom*, 790 F.3d at 1323–24, but *TomTom* is distinguishable here because, in all of the claims at issue, the language relied upon for antecedent basis makes up substantially the entireties of the preambles, and the preamble language is intertwined such that the preambles cannot be parsed

into limiting and non-limiting portions. Also of note, during prosecution the patentee relied upon “controlling access,” which appears in the preambles, while distinguishing prior art references:

The default server of Ong does not *control access* to an ACS but instead sends the address of the ACS back to a requesting customer premises equipment CPE . . . . This is not the same as *controlling access* to the ACS because the default server, as described in Ong, in sending the address of the ACS back to the CPE ceases contact with either, and therefore cannot *control* whether the CPE does indeed gain *access* to the ACS of which it has been advised. In addition, the default server is not intermediary between the CPE and the ACS.

In view of the above discussion, Applicants submit that modifying the teachings of Acke with those of Ong does not logically or reasonably lead to “an auto-configuration server managing device (ACSM) for *controlling access* to the ACSs communicatively coupled intermediately between the plurality of ACSs and the managed electronic device.”

(*See* Dkt. No. 160, Ex. 16, Feb. 21, 2013 Response, at 11 (emphasis added); *see also id.* at 14 (arguing that all claims are allowable for the same reasons).)

The Court therefore hereby finds that **the preambles of Claims 10, 12, and 15 of the ’772 Patent are limiting.**

#### B. “manageable electronic device”

Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
No construction necessary.  Alternatively: “electronic device that can be configured over a network”	“electronic device that requires configuration data from a dedicated ACS and which contains in its memory a default IP address or URL as the address for the ACS, which default IP address or URL actually points to the ACSMD (claims 1, 2, 8, 9, 15, 16) / computer (ACSM) [claims 10, 11] / processing unit (ACSM) [claims 12, 14]”

(Dkt. No. 130, Ex. A, at 9–10; Dkt. No. 146 at 20; Dkt. No. 160 at 18; Dkt. No. 165, Ex. C, at 1–2.) The parties submit that this term appears in Claims 1, 2, 8–12, and 14–16 of the ’772 Patent. (Dkt. No. 130, Ex. A, at 9–10.)

### (1) The Parties' Positions

Plaintiff argues that the specification discloses that an advantage of the claimed invention is that a dedicated address for configuration is not required, and “absent a dedicated address, there cannot be a dedicated ACS.” (Dkt. No. 146 at 21 (citing ’772 Patent at 2:22–33) (emphasis omitted).) Plaintiff also argues that Defendants’ proposal of requiring a “default IP address or URL . . . would render Claim 9, a dependent claim, entirely superfluous.” (Dkt. No. 146 at 21.)

Defendants respond that “[m]anageable electronic device” (MED) is a coined term,” and the specification explains that a “manageable electronic device . . . requires configuration data from a dedicated auto-configuration server.” (Dkt. No. 160 at 18 (quoting ’772 Patent at 5:46–50).) Defendants also submit that “the phrase ‘dedicated auto-configuration server’ appears twenty-five times throughout the specification, specifically referring to those ACSs [(auto configuration servers)] covered by the claimed invention.” (Dkt. No. 160 at 18–19 (emphasis omitted) (citing ’772 Patent at 6:35–52, 6:52–61, 6:63–7:3, 7:9–50 & 7:53–8:31).)

Plaintiff replies that this is not a coined term, and Plaintiff argues that Defendants’ proposed “dedicated address” and “default address” limitations are inconsistent with specific disclosures in the specification and are undercut by claim differentiation. (Dkt. No. 163 at 6–7.)

At the April 19, 2016 hearing, Plaintiff argued that the disclosure relied upon by Defendants relates to particular embodiments rather than the claimed invention as a whole. Defendants responded that “manageable electronic device” is a coined term and therefore must be interpreted narrowly. As to Plaintiff’s claim differentiation argument, Defendants argued that claim differentiation is merely a guide and not a rigid rule, and dependent Claim 9 may simply be redundant.

## (2) Analysis

At the April 19, 2016 hearing, Defendants acknowledged that the issue of whether the disputed term is a coined term is a mixed question of law and fact. *See Teva*, 135 S. Ct. at 841. The threshold issue of whether a term is a coined term is an issue of fact and the Court finds that Defendants have not adequately demonstrated that this is a coined term. Instead, Plaintiff's expert has persuasively opined that this term, in the context of the claims, "would have been understood by one of ordinary skill in the field at the time the patent application was filed in July 2009 to refer simply to an electronic device capable of being configured or managed remotely, including over a network." (Dkt. No. 147, Jan. 27, 2016 Rhyne Decl., at ¶ 25.)

The specification refers to "the present invention" in connection with disclosure of an IP address or URL that points to an auto-configuration server manager:

FIG. 3a shows a flow diagram 100 in accordance with an embodiment of a method of the present invention.

A manageable electronic device in the local area network LAN requires configuration data from a dedicated auto-configuration server, for example the interfacing device 1 requires configuration data for auto-configuration server ACS1.

*In the present invention an (IP) address or URL is provided in a memory of the manageable electronic device 1 as default address for the auto-configuration server ACS1, which default (IP) address or URL actually points to the auto-configuration server manager 25.*

'772 Patent at 5:44-55; *see id.* at 7:14–19 & 7:58–63.

In some circumstances, descriptions of "the present invention" can carry significant weight. *See Verizon Servs. Corp. v. Vonage Holdings Corp.*, 503 F.3d 1295, 1308 (Fed. Cir. 2007) ("When a patent thus describes the features of the 'present invention' as a whole, this description limits the scope of the invention."); *see also Marine Polymer Techs., Inc. v. Hem-Con, Inc.*, 672 F.3d 1350, 1358–59 (citing *Verizon* and other cases).

Here, however, the above-quoted discussion of “the present invention” appears as part of disclosure of “an embodiment of a method of the present invention” as shown in Figure 3a. *See* ’772 Patent at 5:44–55. The limited nature of this reference to “the present invention” is also indicated by the reference numerals that appear in the above-quoted purportedly limiting passage. Those reference numerals refer to elements in particular embodiments, such as in Figure 2. *See id.*

Such a reading is further reinforced by dependent Claim 9 of the ’772 Patent, which recites:

9. The system according to claim 1, where in the manageable electronic device has a default address for obtaining configuration data, the default address being an address of the ACSMD.

“[T]he presence of a dependent claim that adds a particular limitation gives rise to a presumption that the limitation in question is not present in the independent claim.” *See Phillips*, 415 F.3d at 1315. As Defendants have argued, the doctrine of claim differentiation “only creates a presumption that each claim in a patent has a different scope; it is not a hard and fast rule of construction.” *Kraft Foods, Inc. v. Int’l Trading Co.*, 203 F.3d 1362, 1368 (Fed. Cir. 2000) (citation and internal quotation marks omitted). Nonetheless, the doctrine of claim differentiation weighs against Defendants’ proposal of construing the disputed term to require a “default IP address or URL [that] actually points to the ACSMD.” *See, e.g., Liebel-Flarsheim Co. v. Medrad, Inc.*, 358 F.3d 898, 910 (Fed. Cir. 2004) (“[W]here the limitation that is sought to be ‘read into’ an independent claim already appears in a dependent claim, the doctrine of claim differentiation is at its strongest.”).

On balance, the disclosures relied upon by Defendants do not refer to the invention as a whole and do not warrant limiting the construction of the disputed term. *See Verizon*, 503 F.3d

at 1308; *see also Absolute Software, Inc. v. Stealth Signal, Inc.*, 659 F.3d 1121, 1136–37 (Fed. Cir. 2011).

Finally, Defendants have not adequately supported their proposal of requiring a “dedicated” ACS. Even though Defendants submit that “the phrase ‘dedicated auto-configuration server’ appears twenty-five times throughout the specification” (Dkt. No. 160 at 18), it is “not enough that the only embodiments, or all of the embodiments, contain a particular limitation.” *Thorner v. Sony Computer Entm’t Am. LLC*, 669 F.3d 1362, 1366 (Fed. Cir. 2012). Instead, Defendants’ proposed requirement of a “dedicated” ACS is a specific feature of particular embodiments that should not be imported into the construction of “manageable electronic device.” *See Phillips*, 415 F.3d at 1323.

The Court therefore rejects Defendants’ proposed construction. Some construction is appropriate, however, to assist the finder of fact. *See TQP Dev., LLC v. Merrill Lynch & Co., Inc.*, No. 2:08-CV-471, 2012 WL 1940849, at \*2 (E.D. Tex. May 29, 2012) (Bryson, J.) (“The Court believes that some construction of the disputed claim language will assist the jury to understand the claims.”).

Accordingly, The Court hereby construes “**manageable electronic device**” to mean “**electronic device that can be configured over a network**.”

### C. “plurality of auto-configuration servers (ACSs)”

Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
No construction necessary.  Alternatively: “two or more systems of hardware and/or software each of which is capable of configuring a manageable electronic device”	“two or more computers in the WAN, each of which automatically provides configuration data to a manageable electronic device in response to a request from it for configuration data”

(Dkt. No. 130, Ex. A, at 10; Dkt. No. 146, at 22; Dkt. No. 160, at 20; Dkt. No. 165, Ex. C, at 1.)

The parties submit that this term appears in Claims 1, 10, 12, and 15 of the '772 Patent. (Dkt. No. 130, Ex. A, at 10.)

(1) The Parties' Positions

Plaintiff argues claim differentiation as to Claims 2, 11, 14, and 16 and submits that the “provides configuration data” limitation “is disclosed only in the dependent claims . . . .” (Dkt. No. 146 at 22–23.) Plaintiff also argues that using a plurality of auto-configuration servers is merely a feature of one disclosed embodiment. (*Id.* at 23.)

Defendants respond that “[a]n ‘auto configuration server’ is a specific type of server; it contains configuration data; and it also must do something automatically. [Plaintiff’s] construction ignores these concepts.” (Dkt. No. 160 at 20.)

Plaintiff replies that “no reason exists to limit ‘server’ to ‘computer.’” (Dkt. No. 163 at 8.) Plaintiff also argues that “there is no requirement that an ACS must be in a WAN or must ‘provide[] configuration data to a manageable electronic device in response to a request from it for configuration,’” and in support Plaintiff submits that such limitations appear in dependent Claims 7 and 8 and Claims 2, 11, 14, and 16, respectively. (*Id.*)

At the April 19, 2016 hearing, Plaintiff expressed a concern that Defendants’ proposal of “automatically” might be interpreted to mean something like “every time.” Defendants responded that their proposal of “automatically” simply means “not manually.”

(2) Analysis

The parties dispute whether a server must be a “computer,” whether the ACSs must be “in a WAN,” whether the ACSs must “provide configuration data,” and whether the ACSs must operate “automatically.”

Plaintiff’s expert opines that “the term ‘server’ is understood to refer more broadly to any combination of hardware and/or software capable of responding to commands from a client.” (Dkt. No. 147, Jan. 27, 2016 Rhyne Decl., at ¶ 26.) In support, Plaintiff’s expert cites the *IEEE Authoritative Dictionary of IEEE Standards Terms* and the *Microsoft Computer Dictionary*. (*Id.* at Exs. 2 & 3.) This opinion and evidence are persuasive here. *See Teva*, 135 S. Ct. at 841. On balance, Defendants have not demonstrated that an ACS should be limited to being a “computer,” particularly to whatever extent the word “computer” would connote a distinct, discrete physical unit or would exclude special-purpose hardware such as a router. (See Dkt. No. 163-1, Feb. 19, 2016 Rhyne Decl., at ¶ 6.) The “TR-069” industry standard document cited in the ’772 Patent (and submitted here by Defendants in this regard) is unavailing because the disputed term should not be limited to the definitions and limitations of a particular industry implementation. (See Dkt. No. 160, Ex. 13, *DSL Home-Technical Working Group’s TR-069 Specification*, at 11 (“ACS Auto-Configuration Server. This is a component in the broadband network responsible for auto-configuration of the CPE [(Customer Premises Equipment)] for advanced services.”).) Further, Defendants have not demonstrated that a “component” in this industry definition must be a distinct computer and cannot be implemented as software. (*Id.*)

As to Defendants’ proposal of requiring a “WAN,” Claim 1 for example recites merely that the ACSs and various other elements are “communicatively coupled.” The claim does not specify any particular type of network, and Defendants have not identified anything in the specification that would warrant introducing such a limitation. *See, e.g.*, ’772 Patent at 3:63–67. Instead, the geographic separation implied by Defendants’ proposal of a “WAN” is a specific feature of particular embodiments that should not be imported into the construction. *See Phillips*, 415 F.3d at 1323. And here, too, the reference to a “broadband network” in the above-

quoted “TR-069” industry standard is unavailing because the disputed term should not be limited to the definitions and limitations of a particular industry implementation. (See Dkt. No. 160, Ex. 13, *DSL Home-Technical Working Group’s TR-069 Specification*, at 11.) Finally, claim differentiation applies as to dependent Claims 7 and 8 of the ’772 Patent, which expressly recite a WAN limitation. *See, e.g., Liebel-Flarsheim*, 358 F.3d at 910 (“[W]here the limitation that is sought to be ‘read into’ an independent claim already appears in a dependent claim, the doctrine of claim differentiation is at its strongest.”).

As to requiring providing configuration data, such limitations appear in dependent Claims 2, 11, 14, and 16 of the ’772 Patent because those claims recite receiving a reply from the identified ACS and relaying the reply to the manageable electronic device. In contrast, the claims at issue, namely Claims 1, 10, 12, and 15 of the ’772 Patent, recite relaying a request from a manageable electronic device to an identified ACS but do not recite any limitation as to the identified ACS providing configuration information to the manageable electronic device. On balance, including such a limitation in the construction of the disputed term would improperly import a limitation from the specification. *See Phillips*, 415 F.3d at 1323.

Finally, Plaintiff’s proposed interpretation would essentially eliminate “auto” from the “auto-configuration servers” limitation by requiring that each ACS is merely “capable of configuring a manageable electronic device.” Instead, the phrase “auto” requires that each ACS is capable of *automatically* configuring a manageable electronic device. In adopting the word “automatically,” the Court expressly relies upon the parties’ apparent agreement at the April 19, 2016 hearing that “automatically” does not mandate that every request must give rise to a response with configuration data but rather simply indicates that configuring is not performed manually.

Accordingly, the Court hereby construes “**plurality of auto-configuration servers (ACSs)**” to mean “**two or more systems of hardware and/or software, each of which is capable of automatically configuring a manageable electronic device.**”

**D. “auto-configuration server managing device (ACSMD)”**

Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
No construction necessary.  Alternatively: “hardware and/or software that relays configuration requests to the one or more auto-configuration servers”	“computer in the WAN which, in response to a request for configuration data, relays the request to the dedicated ACS, receives a reply with the requested configuration data from the dedicated ACS and transmits <sup>6</sup> the reply to a manageable electronic device”

(Dkt. No. 130, Ex. A, at 11; Dkt. No. 146, at 23; Dkt. No. 160 at 22; Dkt. No. 165, Ex. C, at 2.)

The parties submit that this term appears in Claims 1, 2, 9, 15, and 16 of the ’772 Patent. (Dkt. No. 130, Ex. A, at 11.)

(1) The Parties’ Positions

Plaintiff argues that “[t]he patent teaches that ‘[t]he auto-configuration server manager 25 may be implemented as a computer system 8’—not that it must.” (Dkt. No. 146 at 24.) Plaintiff also argues claim differentiation as to the “receives a reply . . .” limitation proposed by Defendants, arguing “that limitation is set forth in dependent Claims 2, 11, 14, and 16—which demonstrates it has no place in the construction of the independent claim term itself.” (*Id.* (emphasis omitted).)

Defendants respond that “[a]uto configuration server managing device (‘ACSMD,’ sometimes ‘auto configuration server manager’ in the specification) is a coined term,” and “[t]hat the ACS and ACSMD are not located in the user’s home is . . . supported by the specification,

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<sup>6</sup> Defendants previously proposed “relays” rather than “transmits.” (See Dkt. No. 130, Ex. A, at 11; *see also* Dkt. No. 160 at 22.)

which distinguishes between the ACS and ACSMD on the one hand, and ‘Customer Premises Equipment’ on the other.” (Dkt. No. 160 at 22.) Defendants also argue that “in every instance of the claimed version of the ACSMD, the ’772 Patent says the ACSMD relays the request, receives a reply, and transmits the reply to MED [(manageable electronic device)].” (*Id.* at 23 (citing ’772 Patent at 6:63–7:3 & 8:4–31).)

Plaintiff replies that the specification discloses that: (1) the ACSMD may, not must, be implemented as a computer system; (2) there may be more than one appropriate auto-configuration server; and (3) receiving and relaying a reply is a limitation of dependent claims that accompany each independent claim. (Dkt. No. 163 at 8.)

At the April 19, 2016 hearing, Defendants urged that during prosecution the patentee limited the claimed invention to the embodiment shown in Figure 5 of the ’772 Patent. Plaintiff responded that no such disclaimer is apparent. Defendants also argued that although dependent claims recite “relay,” Defendants’ proposal is “transmit” and therefore the doctrine of claim differentiation is inapplicable.

## (2) Analysis

As a threshold matter, Defendants’ proposal of “computer in the WAN” should be rejected for substantially the same reasons as for the term “plurality of auto-configuration servers (ACSs),” which is addressed above.

As to Defendants’ proposal of requiring that an ACSMD receives a reply with the requested configuration data from the dedicated ACS and relays the reply to a manageable electronic device, such limitations appear in dependent Claims 2, 11, 14, and 16 of the ’772 Patent. The doctrine of claim differentiation therefore weighs against Defendants’ proposal. *See, e.g., Liebel-Flarsheim*, 358 F.3d at 910 (“[W]here the limitation that is sought to be ‘read

into' an independent claim already appears in a dependent claim, the doctrine of claim differentiation is at its strongest.”).

Further, Defendants’ proposed construction is at odds with disclosure that the identified ACS could provide configuration data directly to the manageable electronic device. *See* ’772 Patent at 7:37–50 & Fig. 4. Although Defendants argue that the “controlling access” limitation demonstrates that the claimed ACSMD is limited to the embodiment shown in Figure 5, “controlling access” has been presented as a distinct disputed term and is addressed separately below. Defendants’ proposal would improperly import a limitation from a particular disclosed embodiment. *See Phillips*, 415 F.3d at 1323.

Finally, Defendants alternatively propose that “[t]o resolve any claim differentiation issues, the second instance of ‘relays’ in [Defendants’] construction may be changed to the broader term ‘transmits.’” (Dkt. No. 160 at 23, n.16 (citing ’772 Patent at 6:63–7:3).) This appears, however, to be a distinction without a difference for purposes of the present dispute.

The Court therefore rejects Defendants’ proposed construction. As to the proper construction, surrounding claim language recites properties of the ACSMD (*see* ’772 Patent at Claims 1, 2, 15, & 16), but some construction is appropriate, however, to assist the finder of fact. *See TQP*, 2012 WL 1940849, at \*2.

Accordingly, the Court hereby construes **“auto-configuration server managing device (ACSMD)”** to mean **“hardware and/or software that relays configuration requests to the auto-configuration servers.”**

## E. “computer” and “processing unit”

Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
No construction necessary.  Alternatively: Plain and ordinary meaning.	Requires the same construction as “ACSMD”

(Dkt. No. 130, Ex. A, at 12; Dkt. No. 146 at 25; Dkt. No. 160 at 25; Dkt. No. 165, Ex. C, at 6 & 9.) The parties submit that these terms appear in Claims 10-12 of the ’772 Patent. (Dkt. No. 130, Ex. A, at 12.)

### (1) The Parties’ Positions

Plaintiff argues that “[t]he terms ‘computer’ and ‘processing unit’ are elementary concepts any lay person would understand.” (Dkt. No. 146, at 25.) Moreover, Plaintiff argues that different terms are presumed to have different meanings, and “[h]ad the applicant intended both ‘computer’ and ‘processing unit’ to mean ‘auto-configuration server managing device’ or ‘ACSMD,’ it would have used such terms as it did in claims.” (*Id.*)

Defendants respond that “[a]lthough Applicants used the words ‘computer’ and ‘processing unit’ in claims 10 and 12, respectively, each performs the very same function as the ACSMD.” (Dkt. No. 160 at 26.)

Plaintiff replies that “the patent does not use the terms ‘computer’ and ‘processing unit’ interchangeably with ‘auto-configuration server managing device.’ To the contrary, it specifically notes their differences.” (Dkt. No. 163, at 9.)

At the April 19, 2016 hearing, the parties submitted these terms on the briefing without oral argument.

## (2) Analysis

On one hand, “[c]laims that are written in different words may ultimately cover substantially the same subject matter.” *Multiform Desiccants, Inc. v. Medzam, Ltd.*, 133 F.3d 1473, 1480 (Fed. Cir. 1998) (citations omitted). Likewise, “it is not unknown for different words to be used to express similar concepts, even though it may be poor drafting practice.” *Bancorp Servs., L.L.C. v. Hartford Life Ins. Co.*, 359 F.3d 1367, 1373 (Fed. Cir. 2004). On the other hand, the specification draws a distinction, disclosing that “[t]he auto-configuration server manager 25 *may* be implemented as a computer system 8.” ’772 Patent at 8:49–50 (emphasis added); *see id.* at Figs. 2 & 6.

On balance, Defendants have not adequately demonstrated that “computer” and “processing unit” should be equated with the ACSMD that is recited in other claims. *Compare* ’772 Patent at Cls. 10-12 *with* ’772 Patent at Cls. 1, 2, 15, & 16. Defendants have cited *Fractus, S.A. v. Samsung Elecs. Co.*, No. 6:09-CV-203, 2010 WL 5287531 (E.D. Tex. Dec. 17, 2010), which addressed the terms “structure” and “multi-level structure.” *See Id.* at \*5. *Fractus* is distinguishable, however, because *Fractus* noted that the “specifications provide little support for construing the more generic term ‘structure’ differently” than “multi-level structure.” *Id.* Here, the terms “computer” and “processing unit” are generic terms that stand in contrast with the specialized ACSMD. *See* ’772 Patent at 8:49–50 (quoted above).

The Court therefore hereby expressly rejects Defendants’ proposed construction. No further construction is necessary. *See U.S. Surgical*, 103 F.3d at 1568; *see also O2 Micro*, 521 F.3d at 1362; *Finjan*, 626 F.3d at 1207; *ActiveVideo*, 694 F.3d at 1326; *Summit 6*, 802 F.3d at 1291.

Accordingly, the Court hereby construes “**computer**” and “**processing unit**” to have their **plain meaning**.

**F. “controlling access”**

<b>Plaintiff’s Proposed Construction</b>	<b>Defendants’ Proposed Construction</b>
No construction necessary.  Alternatively: “controlling whether [the manageable electronic device] gains access”	“remaining in contact with, and functioning as an intermediate for, the manageable electronic device and the ACS”

(Dkt. No. 130, Ex. A, at 13; Dkt. No. 146, at 25; Dkt. No. 160, at 22; Dkt. No. 165, Ex. C, at 2.)

The parties submit that this term appears in Claims 1, 10, 12, and 15 of the ’772 Patent. (Dkt. No. 130, Ex. A, at 13.)

(1) The Parties’ Positions

Plaintiff argues that Defendants’ proposal of “remaining in contact” should be rejected because “[t]he specification reflects th[e] reality” that “network devices function by transmitting and receiving discreet [*sic*, discrete] packets of data.” (Dkt. No. 146 at 26.) As to the prosecution history, Plaintiff argues that the patentee “expressly distinguished the prior art by explaining that ‘controlling access’ *does not require* ongoing ‘monitoring’ of the communications exchanged between device and server.” (*Id.* at 27.)

Defendants respond as to this term together with the term “auto-configuration server managing device (ACSMD),” which is addressed above. (*See* Dkt. No. 160 at 22–25.)

Plaintiff replies that, during prosecution, the patentee “explained only that ‘controlling access’ requires something *more* than merely ‘sending the address of the ACS back to the CPE’ and then ‘ceas[ing] contact with either’—a far different statement than what [Defendants] represent[].” (Dkt. No. 163 at 9.)

At the April 19, 2016 hearing, Plaintiff argued that relaying as an intermediate occurs in some but not all embodiments. Defendants responded that the prosecution contains a clear disclaimer.

## (2) Analysis

Defendants propose imposing two distinct but related limitations upon the term “controlling access,” namely “remaining in contact” and “functioning as an intermediate.”

During prosecution, the patentee distinguished the “Ong” reference, United States Patent Application Publication No. 2007/0011301, as well as the “Acke” reference, United States Patent Application Publication No. 2009/0219820:

. . . Ong discloses a default server . . . , and not an ACSMD. The default server of Ong does not control access to an ACS but instead sends the address of the ACS back to a requesting customer premises equipment CPE . . . . This is not the same as controlling access to the ACS because the default server, as described in Ong, in sending the address of the ACS back to the CPE ceases contact with either, and therefore cannot control whether the CPE does indeed gain access to the ACS of which it has been advised. In addition, the default server is not intermediary between the CPE and the ACS.

In view of the above discussion, Applicants submit that modifying the teachings of Acke with those of Ong does not logically or reasonably lead to “an auto-configuration server managing device (ACSMD) for controlling access to the ACSs communicatively coupled intermediately between the plurality of ACSs and the managed electronic device.”

(Dkt. No. 160, Ex. 16, Feb. 21, 2013 Response, at 11 (citations omitted).) The patentee thus explained that the “controlling access” limitation requires remaining in contact with the ACS and the manageable electronic device, and the patentee expressly relied upon that interpretation while distinguishing prior art references.

Such an interpretation is consistent with the opinion of Plaintiff’s expert that network devices “function by transmitting and receiving discreet [sic, discrete] packets of data” such that

“[c]onstant contact is not required.” (Dkt. No. 147, Jan. 27, 2016 Rhyne Decl., at ¶28.)

Defendants are not proposing a “constant” contact limitation.

Thus, the patentee’s above-quoted definitive statements during prosecution should be given effect in the construction of the disputed term. *See Typhoon Touch*, 659 F.3d at 1381 (“The patentee is bound by representations made and actions that were taken in order to obtain the patent.”); *see also Springs Window*, 323 F.3d at 995; *Southwall Tech., Inc. v. Cardinal IG Co.*, 54 F.3d 1570, 1576 (Fed. Cir. 1995) (“Claims may not be construed one way in order to obtain their allowance and in a different way against accused infringers.”).

The patentee distinguished the Acke reference on other grounds as well, arguing that “monitoring sessions for acquiring session information is not ‘controlling access’ between devices,” and “the proxy server disclosed in Acke does not control access but instead merely hands on messages as they arrive.” (Dkt. No. 160, Ex. 16, Feb. 21, 2013 Response, at 11.) Regardless of other arguments having been made, however, the above-quoted definitive statements requiring the ACSMD to remain in contact should be given effect. *See Andersen Corp. v. Fiber Composites, LLC*, 474 F.3d 1361, 1374 (Fed. Cir. 2007) (“An applicant’s invocation of multiple grounds for distinguishing a prior art reference does not immunize each of them from being used to construe the claim language. Rather, as we have made clear, an applicant’s argument that a prior art reference is distinguishable on a particular ground can serve as a disclaimer of claim scope even if the applicant distinguishes the reference on other grounds as well.”)

As to Defendants’ proposal of “functioning as an intermediate,” however, the above-discussed prosecution history does not provide adequate support. Instead, the patentee merely highlighted what is required by surrounding claim language. *See, e.g.*, ’772 Patent at Cl. 1

(“an auto-configuration server managing device (ACSMD) for controlling access to the ACSs communicatively coupled intermediately between the plurality of ACSs and the managed electronic device”).

Accordingly, the Court hereby construes “**controlling access**” to mean “**remaining in contact with the manageable electronic device and the ACS, and controlling whether the manageable electronic device gains access.**”

**G. “configuration data” and “configuration data comprises data for configuring the manageable electronic device”**

Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
No construction necessary.  Alternatively: “settings and/or parameters”	“data that defines the operational limits and characteristics [of the manageable electronic device]”

(Dkt. No. 130, Ex. A, at 14–15; Dkt. No. 146, at 27; Dkt. No. 160, at 26–27; Dkt. No. 165, Ex. C, at 3.) The parties submit that this term appears in Claims 1, 9, 10, 12, and 15 of the ’772 Patent. (Dkt. No. 130, Ex. A, at 14–15.)

(1) The Parties’ Positions

Plaintiff argues that the claims “already define[] ‘configuration data’ to ‘comprise[] data for configuring the manageable electronic device.’” (Dkt. No. 146 at 27.) Plaintiff also argues that “‘configuration data’ is not limited to installation information,” and Plaintiff submits that Defendants’ proposal “would exclude or limit even some of the exemplary embodiments . . . .” (*Id.* at 28.)

Defendants respond that “[Plaintiff’s] definition is unhelpful because it is recursive, using the same term to define itself, and nothing more.” (Dkt. No. 160 at 27.) Defendants also argue that “[Plaintiff’s] proposed construction is apparently intended to capture a mere ‘network

address' as 'configuration data.' However, as [Plaintiff] expressly, and correctly, told the PTO, a request for a network address is not a request for configuration data." (*Id.* at 28 (emphasis omitted).)

Plaintiff replies that Defendants "ignore[] that the purpose of the invention is to allow for the installation, updating, and 'management' (collectively, configuration) of remote devices. Thus, the scope of the configuration data sent to such devices cannot be narrower than what might be necessary to configure them." (Dkt. No. 163 at 10.)

At the April 19, 2016 hearing, Defendants argued that configuration data is distinct from the address of an ACS, and Defendants urged that the term "configuration data" should be construed so as to clarify this distinction.

## (2) Analysis

Claim 1 of the '772 Patent, for example, recites in relevant part (emphasis added):

... wherein the manageable electronic device is configured to send a request for *configuration data* to the ACSMD,

*wherein configuration data comprise data for configuring the manageable electronic device, and*

wherein the ACSMD is configured, responsive to receiving the request, to:

...

identify an ACS from the plurality of ACSs in accordance with the identification of the manageable electronic device to provide *configuration data* to the manageable electronic device, . . . .

Surrounding claim language thus explains the meaning of "configuration data." The specification is likewise consistent with a broad reading of "configuration data":

The manageable electronic device receives the second relayed message and uses the configuration data within the second relayed message for *any configuration purposes* as described above.

'772 Patent at 8:33–35 (emphasis added); *see id.* at 4:40–44 ("In the method from the prior art, a manageable electronic device requires configuration data from a dedicated auto-configuration

server, for example, as an initialization of the level of service available to the manageable electronic device after installation or as an update during operation.”).

Defendants have cited a technical dictionary definition of “configuration information” as meaning “[t]he data or information that defines the operational limits and characteristics of a particular device.” (Dkt. No. 160, Ex. 17, *The Authoritative Dictionary of IEEE Standards Terms* 217 (7th ed. 2000).) Although technical dictionary definitions can be probative in some circumstances, *see Phillips*, 415 F.3d at 1318, “heavy reliance on the dictionary divorced from the intrinsic evidence risks transforming the meaning of the claim term to the artisan into the meaning of the term in the abstract, out of its particular context, which is the specification.” *Id.* at 1321. On balance, Defendants’ narrow proposal of “operational limits and characteristics” lacks adequate support in the claim language or the specification. To whatever extent such features are apparent in the specification, they should not be imported into the claims. *See Phillips*, 415 F.3d at 1323.

Defendants properly note that, while distinguishing the Ong reference during prosecution, the patentee distinguished “a request for configuration data” from “only a request for network address,” explaining that a “request for network address” is not sufficient to constitute a “request for configuration data.” (Dkt. No. 160, Ex. 16, Feb. 21, 2013 Response, at 13.)

It does not necessarily follow, however, that the patentee thereby disclaimed a “network address” from being within the scope of “configuration data.” *See, e.g., Omega Eng’g v. Raytek Corp.*, 334 F.3d 1314, 1324 (Fed. Cir. 2003) (“As a basic principle of claim interpretation, prosecution disclaimer promotes the public notice function of the intrinsic evidence and protects the public’s reliance on *definitive* statements made during prosecution.”) (emphasis added); *id.* at 1325-26 (“[F]or prosecution disclaimer to attach, our precedent requires that the alleged

disavowing actions or statements made during prosecution be both *clear and unmistakable.*") (emphasis added); *Golight, Inc. v. Wal-Mart Stores, Inc.*, 355 F.3d 1327, 1332 (Fed. Cir. 2004) ("Because the statements in the prosecution history are subject to multiple reasonable interpretations, they do not constitute a clear and unmistakable departure from the ordinary meaning of the term . . .").

The Court therefore rejects Defendants' proposed construction. Although Defendants have argued that construction is necessary to distinguish configuration data from a network address, no further construction is necessary because the Court has rejected Defendants' proposed limitation and the plain meaning is sufficiently clear. *See U.S. Surgical*, 103 F.3d at 1568; *see also O2 Micro*, 521 F.3d at 1362; *Finjan*, 626 F.3d at 1207; *ActiveVideo*, 694 F.3d at 1326; *Summit 6*, 802 F.3d at 1291.

Accordingly, the Court hereby construes "**configuration data**" and "**configuration data comprises data for configuring the manageable electronic device**" to have their **plain meaning**.

**H. "request for configuration data" and "request from a manageable electronic device for configuration data"**

<b>Plaintiff's Proposed Construction</b>	<b>Defendants' Proposed Construction</b>
No construction necessary.  Alternatively: "request for settings and/or parameters"	"a message, which includes the default IP address or URL of the ACSMD [claims 1, 15] / computer (ACSMD) [claim 10] / processing unit (ACSMD) [claim 12], from a manageable electronic device asking for configuration data"

(Dkt. No. 130, Ex. A, at 13; Dkt. No. 146, at 29; Dkt. No. 16, at 28-29; Dkt. No. 165, Ex. C, at 2-3 & 7.) The parties submit that this term appears in Claims 1, 10, 12, and 15 of the '772 Patent. (Dkt. No. 130, Ex. A, at 13.)

### (1) The Parties' Positions

Plaintiff argues that Defendants' proposed construction would exclude disclosed embodiments in which the "request" "may comprise information on the manufacturer or supplier of the manageable electronic device." (Dkt. No. 146 at 29 (quoting '772 Patent at 6:8–9).) Plaintiff also argues that Defendants are attempting to "sidestep the fundamental teaching of the '772 patent as a whole," "that it *does not require* that a manageable electronic device come pre-configured with 'a dedicated address for configuration' in its memory," because "if the device itself does not need to have any particular configuration address in its memory, then no basis exists to read an address limitation into the message it sends." (Dkt. No. 146 at 30.)

Defendants respond that "[a]s discussed . . . with reference to 'manageable electronic device,' in the 'present invention' the IP address or URL in the memory of the MED 'actually points to the auto-configuration server manager 25,' i.e., the ACSMD." (Dkt. No. 160 at 29 (quoting '772 Patent at 5:51–55).)

Plaintiff replies that Defendants' proposed limitation is inconsistent with the broader disclosures in the specification. (Dkt. No. 163, at 10.)

At the April 19, 2016 hearing, the parties submitted these terms on the briefing without oral argument.

### (2) Analysis

For substantially the same reasons discussed above as to the term "manageable electronic device," the Court hereby expressly rejects Defendants' proposal of requiring use of a "default IP address or URL."

The Court therefore hereby expressly rejects Defendants' proposed construction. No further construction is necessary. *See U.S. Surgical*, 103 F.3d at 1568; *see also O2 Micro*, 521

F.3d at 1362; *Finjan*, 626 F.3d at 1207; *ActiveVideo*, 694 F.3d at 1326; *Summit 6*, 802 F.3d at 1291.

Accordingly, the Court hereby construes “**request for configuration data**” and “**request from a manageable electronic device for configuration data**” to have their **plain meaning**.

## I. “relay”

Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
“change, process, translate, or manage, before transferring [the request]”	“read and change the payload of a message before forwarding it”

(Dkt. No. 130, Ex. A, at 1; Dkt. No. 146, at 30; Dkt. No. 160, at 29; Dkt. No. 165, Ex. C, at 4.)

The parties submit that this term appears in Claims 1, 10, 11, 12, 14, 15, and 16 of the ’772 Patent. (Dkt. No. 130, Ex. A, at 1.)

### (1) The Parties’ Positions

Plaintiff argues that Defendants’ proposed construction should be rejected because it limits the disputed term to one of several actions identified in the prosecution history and because “it limits ‘relaying’ to being directed to ‘the payload of a message,’ rather than, as . . . explained in the [prosecution history], ‘the incoming message’ generally.” (Dkt. No. 146 at 31.)

Defendants respond that “despite the prosecution history directly on point, [Plaintiff] fails to take into account the distinction between changes to a message header versus changes to a message payload.” (Dkt. No. 160 at 30.) Defendants also argue that whereas the patentee “used ‘changing’ and ‘processing’ as synonyms,’ and whereas “‘translating’ . . . also constitutes a ‘change’ to the request,” “it is not at all clear what ‘managing a request’ means and therefore the Court should not add it to the construction.” (*Id.*)

Plaintiff replies that the prosecution history “simply requires that the ’772 invention have the capability to do something more than merely ‘reading and changing the message header’—a requirement [Plaintiff’s] construction reflects.” (Dkt. No. 163 at 11.)

At the April 19, 2016 hearing, the parties submitted this term on the briefing without oral argument.

## (2) Analysis

During prosecution, the patentee argued as follows while distinguishing the Acke reference, United States Patent Application Publication No. 2009/0219820 (emphasis in original):

Applicants respectfully submit that what Acke teaches is different from what is now recited in claim 1.

More particularly, Acke teaches “The TR-069 session is *forwarded* by the proxy to the appropriate ACS. Connection requests coming from the ACS(s) can also be *forwarded* or proxied toward the CPE” (emphasis added). As one of ordinary skill in the art would readily understand, *forwarding* session requests and connection requests entails transferring messages from a receiving incoming port of a device to an appropriate transmitting outgoing port of the device, *without changing or processing the messages*. That is, the device, such as a proxy server, does not process or even read the payload of a message that is to be forwarded, but merely reads the message header to determine the correct outgoing port, and then substitutes the previously used header — which will have, e.g., addressed the proxy server since that is where the message was delivered — with a new header indicating the new address, being the address to which the proxy server *forwards* the message.

In contrast, claim 1 recites, *inter alia*, “wherein the ACSMD is further configured to *relay* the request to the identified ACS” (emphasis added). One of ordinary skill in the art would, in this case, recognize that *relaying* a request includes the possibility to change, process, or otherwise manage the request, all of which would require that the ACSMD unravel the incoming message to determine what action, if any, is required to be taken. By way of example, an incoming TR-069 message (e.g., a message generated according to the TR-069 protocol) could be translated into UPnP message (e.g., a message generated according to the UPnP protocol) as part of *relaying* the message to its destination. Such a translation is accommodated by an “ACSME . . . configured to relay” a request, as recited in

claim 1, but could not occur for a message that is *forwarded*, as is the case for Acke.

In a similar way, the teaching by Acke that requests might be “*proxied* toward the CPE” also omits the functionality of *relaying* requests. Specifically, as one of ordinary skill in the art would again comprehend, a “proxy” stores a copy of information for further use but does not handle or unravel the original information.

(Dkt. No. 160, Ex. 18, Feb. 11, 2014 Response, at 10–11.)

The above statement to the Examiner reflects that “forwarding” refers to modifying a message header, “relaying” refers to changing or processing the content of a request or otherwise managing the request based on its payload content. *See Typhoon Touch*, 659 F.3d at 1381 (“The patentee is bound by representations made and actions that were taken in order to obtain the patent.”); *see also Springs Window*, 323 F.3d at 995; *Southwall*, 54 F.3d at 1576 (“Claims may not be construed one way in order to obtain their allowance and in a different way against accused infringers.”).

Accordingly, the Court hereby construes “**relay**” to mean “**change, process, or otherwise manage a request based at least in part on its payload.**”

## **VII. CONSTRUCTION OF DISPUTED TERMS IN U.S. PATENT NO. 9,014,667**

The ’667 Patent, titled “Telecommunications Network and Method for Time-Based Network Access,” issued on April 21, 2015, and bears an earliest priority date of February 29, 2008. Plaintiff has asserted Claims 31, 33, and 35 of the ’667 Patent. (Dkt. No. 146 at 32.) The Abstract states:

The invention relates to a telecommunications network configured for providing access to a plurality of terminals proposed and a method therefore. Each terminal comprises a unique identifier for accessing the telecommunications network. The telecommunications network comprises a register, an access request receiver and an access module. The register is configured for storing the unique identifier of at least one terminal in combination with at least one grant access time interval, or an equivalent thereof, during which access for the terminal

is permitted. The access request receiver is configured for receiving the access request and the unique identifier for accessing the telecommunications network from the terminal. The access module is configured for denying access for the terminal if the access request is received outside the time interval, or the equivalent thereof.

#### A. Preambles of Claims 31, 33, and 35

Plaintiff's Proposed Construction	Defendants' Proposed Construction
This is a non-limiting preamble. No construction is necessary.	Preambles are limiting

(Dkt. No. 130, Ex. A at 16; Dkt. No. 146, at 32; Dkt. No. 160, at 31; Dkt. No. 165, Ex. D, at 1 & 6.)

##### (1) The Parties' Positions

Plaintiff argues that “[t]he text of each preamble demonstrates it . . . is intended simply to convey the purpose or intended use of each invention—in Claim 31, to provide access to a plurality of terminals; in Claim 33, to provide instructions that cause a network device to act in a specific manner; and in Claim 35, to identify a terminal for use in the disclosed invention.” (Dkt. No. 146 at 33.)

Defendants respond that “[e]ach of these preambles describe not only the operating circumstances for the invention inside a ‘telecommunications network,’ but also specific details regarding the assignment of ‘unique identifiers’ to the ‘terminals’—and the claimed invention requires those unique identifiers in order to regulate the network using the claimed ‘deny access time intervals.’” (Dkt. No. 160 at 31.) “Further,” Defendants argue, “these preambles each contain antecedent basis for further elements in the body of the claim which refer back to the preambles.” (*Id.*)

Plaintiff replies that the preambles do not recite essential structure. (Dkt. No. 163 at 11.)

At the April 19, 2016 hearing, the parties submitted these terms on the briefing without oral argument.

## (2) Analysis

In Claim 31 of the '667 Patent, for example, the preamble provides antecedent basis for the “telecommunications network,” “terminals,” and “unique identifier” recited in the body of the claim. Claim 35 is similar as to “telecommunications network” and “terminals,” and the preamble recital of “a unique identifier for accessing the telecommunications network” provides support for recitals of “telecommunications network access” in the body of the claim. Likewise, in Claim 33 the “telecommunications network” recited in the preamble provides antecedent basis for that term in the body of the claim.

Plaintiff relies upon *TomTom*, 790 F.3d at 1323–24, but *TomTom* is distinguishable here because the language relied upon for antecedent basis makes up substantially the entireties of the preambles, and the preamble language is intertwined such that the preambles cannot be parsed into limiting and non-limiting portions. *See Blue Calypso*, 93 F. Supp. 3d at 594.

Accordingly, the Court hereby finds that **the preambles of Claims 31, 33, and 35 of the '667 Patent are limiting.**

## **B. “machine-to-machine applications”**

<b>Plaintiff’s Proposed Construction</b>	<b>Defendants’ Proposed Construction</b>
No construction necessary.  Alternatively: “applications that allow for data communication between entities without necessarily requiring human interaction”	“applications that operate without human intervention, only rarely require access to a telecommunications network, and do not require the transfer of data to be immediate”

(Dkt. No. 130, Ex. A, at 16; Dkt. No. 146, at 33; Dkt. No. 160, at 32; Dkt. No. 165, Ex. D, at 3.)

The parties submit that this term appears in Claims 31, 33, and 35 of the '667 Patent. (Dkt. No. 130, Ex. A, at 16.)

(1) The Parties' Positions

Plaintiff argues that whereas "machine-to-machine" refers to a well-known type of communications, "[Defendants'] construction—and the three limitations it seeks to apply—are refuted not only by the specification, but by its own extrinsic evidence." (Dkt. No. 146 at 33–34.)

Defendants respond that their proposal is supported by the Summary of the Invention, as well as by other evidence, and Defendants argue that Plaintiff's proposal of inserting the word "necessarily" into the construction would render the disputed term meaningless. (Dkt. No. 160, at 33.) Defendants also argue that Plaintiff "fails to take into account that the M2M applications at issue in the specification are those that do not require data transfer to be immediate." (*Id.*)

Plaintiff replies that words such as "some" and "typically" in the Summary of the Invention undermine Defendants' reliance upon such disclosures. (Dkt. No. 163 at 12.) Plaintiff also argues that relevant industry standards released shortly before the filing date of the '667 Patent are consistent with Plaintiff's proposed construction. (*Id.*)

At the April 19, 2016 hearing, the parties substantially agreed that although a machine-to-machine application normally operates without human intervention, occasional human intervention may be appropriate, such as in the case of an error or a failure to operate. Nonetheless, the parties were unable to agree upon a construction.

## (2) Analysis

The parties substantially agree that machine-to-machine applications can operate without human intervention, and the parties have cited industry documents in that regard. (*See* Dkt. No. 146, Ex. H, 3GPP TR 22.868 V8.0.0 (2007-03), at 5 (“a form of data communication between entities that do not necessarily need human interaction”); *see also id.* Ex. I, ETSI TS 122 368 V10.5.0 (2011-07), at 6 (“Machine type communication is a form of data communication which involves one or more entities that do not necessarily need human interaction.”); Dkt. No. 160 at Ex. 19; *id.* at Ex. 20, *Network QoS Needs of Advanced Internet Applications*, at 8.) Nonetheless, Plaintiff’s proposal that such applications operate without “necessarily” requiring human interaction is rejected because the proposed construction would confuse rather than clarify the meaning of the disputed term.

Instead, the construction should explain that machine-to-machine applications *normally* operate without human intervention. *See* Dkt. No. 146, Ex. J, 3GPP TR 33.812 V0.0.2 (2007-10), at 4 (“Machine to Machine (M2M) Communication is seen as a form of data communication between entities that *when deployed* do not necessarily need human interaction.”) (emphasis added).

As to Defendants’ proposal that machine-to-machine applications “only rarely require access to a telecommunications network” and “do not require the transfer of data to be immediate,” Defendants cite disclosure in related United States Patent No. 9,125,131<sup>7</sup> regarding attributes of “many” machine-to-machine applications:

*Many M2M [(machine-to-machine)] applications are not time critical. A device may need to send/receive data regularly to/from a server, for instance every 24 hours, but has no further requirements about a specific time. In such cases a*

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<sup>7</sup> United States Patent No. 9,125,131 incorporates-by-reference a foreign patent document, EP 2 096 884, as to which the ’667 Patent claims priority.

network operator may decide to schedule network access for these devices in a non-busy time period, as was e.g. disclosed in EP 2 096 884, which is incorporated by reference in the present application in its entirety.

(Dkt. No. 160, Ex. 22, U.S. Patent No. 9,125,131 at 1:62-2:2 (emphasis added); *see id.* Ex. 23, EP 2 096 884.) Likewise, the '667 Patent discloses that “*some* machine-to-machine (M2M) applications do not require the transfer of data to be immediate.” '667 Patent at 2:50–52 (emphasis added); *see id.* at 2:56–58 (“M2M applications *typically* involve hundreds or thousands of devices that only rarely require access to a telecommunications network.”) (emphasis added). Defendants’ proposal would therefore improperly import specific features of particular embodiments and is accordingly rejected. *See Phillips*, 415 F.3d at 1323.

Thus, the Court hereby construes “**machine-to-machine applications**” to mean “**applications that allow for data communication between devices and that normally operate without human intervention.**”

### C. “unique identifier”

Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
No construction necessary.  Alternatively: “one or more pieces of information that allow for unique recognition”	“non-temporary identifier of a terminal”

(Dkt. No. 130, Ex. A, at 18; Dkt. No. 146, at 35; Dkt. No. 160, at 34; Dkt. No. 165, Ex. D, at 1.) The parties submit that this term appears in Claims 31, 33, and 35 of the '667 Patent. (Dkt. No. 130, Ex. A, at 16.)

#### (1) The Parties’ Positions

Plaintiff argues:

[Defendants] rel[y] . . . on the patent’s description of a *different* identifier—a “temporary identifier”—to read a limitation into “unique identifier.” As the

specification teaches, however, the two identifiers are distinct; an access request may contain a “unique identifier *or* a temporary identifier.” [’667 Patent] (2:5-8) (emphasis added). And the fact that one identifier is temporary does not mean the other cannot be. . . . At most, it shows “unique identifier” may be temporary or non-temporary, while a “temporary identifier” may be unique or non-unique.

(Dkt. No. 146 at 35 (citation omitted).)

Defendants respond that their proposed construction “conveys that where the claims recite ‘unique identifier’ they refer to the identifier *other than* a temporary identifier of the terminal in question, which is precisely the distinction drawn by the patentee.” (Dkt. No. 160 at 35.) Defendants submit that Plaintiff’s proposal “would essentially broaden the scope of the claim to any ‘identifier.’” (*Id.*)

Plaintiff replies that “the patent never requires a ‘unique identifier’ to be an ‘IMSI’ or precludes it from being a ‘TMSI.’ Rather, the patent contemplates both may be used as a ‘unique identifier’ . . . .” (Dkt. No. 163 at 13.)

At the April 19, 2016 hearing, the parties submitted this term on the briefing without oral argument.

## (2) Analysis

On one hand, the Summary of the Invention appears to contrast a “unique identifier” with a “temporary identifier”:

The unique identifier is preferably associated with a subscription of the terminal, e.g. the identifier of a SIM (IMSI) that is available in the terminal.

\* \* \*

An access request is received from the terminal for access to the telecommunications network. The access request may contain the *unique identifier or a temporary identifier*.

’667 Patent at 1:47-49 & 2:6-9 (emphasis added); *see id.* at 5:54-58 (“The attach request may contain either this IMSI or a P-TMSI assigned to terminal A by an SGSN [(serving GPRS

support node)]. The P-TMSI is used to prevent transmission of the IMSI over the radio path as much as possible for security reasons.”).

On the other hand, Defendants’ proposal of a “non-temporary” identifier requires that a “unique identifier” must be permanent and unchanging. To whatever extent the specification discloses such a feature, it is a specific feature of particular disclosed embodiments that should not be imported into the claims. *See Phillips*, 415 F.3d at 1323.

Accordingly, the Court hereby rejects Defendants’ proposed construction. No further construction is necessary. *See U.S. Surgical*, 103 F.3d at 1568; *see also O2 Micro*, 521 F.3d at 1362; *Finjan*, 626 F.3d at 1207; *ActiveVideo*, 694 F.3d at 1326; *Summit 6*, 802 F.3d at 1291.

The Court accordingly hereby construes “**unique identifier**” to have its **plain meaning**.

#### D. “time period”

Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
No construction necessary. Alternatively, plain and ordinary. <sup>8</sup>	“time slot”

(Dkt. No. 130, Ex. A, at 18; Dkt. No. 146, at 35; Dkt. No. 160, at 35; Dkt. No. 165, Ex. D, at 1-2.) The parties submit that this term appears in Claims 31, 33, and 35 of the ’667 Patent. (Dkt. No. 130, Ex. A, at 18.)

##### (1) The Parties’ Positions

Plaintiff argues that this “non-technical term” needs no construction and that “‘time slot’ is understood in the art to have [*sic, be*] a narrower, more restrictive subset of ‘time period.’” (Dkt. No. 146 at 35.) Plaintiff argues that Defendants’ reliance upon disclosures regarding “time interval” should be rejected because both terms appear in Claim 31, and “use of two terms in a

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<sup>8</sup> Plaintiff previously proposed: “No construction is necessary. Alternatively: ‘time frame.’” (Dkt. No. 130, Ex. A, at 18.)

claim requires that they connote different meanings.” (*Id.* (quoting *Applied Med. Res. Corp. v. U.S. Surgical Corp.*, 448 F.3d 1324, 1333 n.3 (Fed. Cir. 2006).)

Defendants respond as to this term together with the term “deny access time interval,” which is addressed below. Defendants submit that they are “only seeking to construe this term so that it is consistent with the ‘deny access time interval,’ which the claim refers to as ‘a time period during which telecommunications network access for the terminal is denied.’” (Dkt. No. 160 at 37.)

Plaintiff replies that “even a time interval is not limited to being a time slot,” and “the patent demonstrates that ‘time period’ has a broader scope even than ‘time interval.’” (Dkt. No. 163 at 13–14.)

At the April 19, 2016 hearing, the parties submitted this term on the briefing without oral argument.

## (2) Analysis

Claim 31 of the ’667 Patent recites “time period” as well as “time interval”:

31. A telecommunications network configured for providing access to a plurality of terminals, each terminal associated with a unique identifier for accessing the telecommunications network, wherein the telecommunications network comprises:

a register configured to store the unique identifier of at least one terminal in combination with identification of at least one associated deny access *time interval*, the at least one associated deny access *time interval* being a *time period* during which telecommunications network access for the terminal is denied;

one or more processors;

memory storing processor instructions that, when executed by the one or more processors, cause the one or more processors to carry out operations including:

an access request operation to receive an access request from the terminal and to receive or determine the unique identifier associated with the terminal;

an access operation to deny access for the terminal if the access request is received within the *time period*,

wherein the telecommunications network is further configured to monitor a network load of the telecommunications network,

wherein the telecommunications network is further configured to adapt the *time period* depending on the monitored network load, and

wherein machine-to-machine applications are executed, and wherein the plurality of terminals for the machine-to-machine applications are denied access to the telecommunications network during peak load *time intervals*, the *time period* being within peak load *time intervals*.

“In the absence of any evidence to the contrary, we must presume that the use of these different terms in the claims connotes different meanings.” *CAE Screenplates, Inc. v. Heinrich Fiedler GmbH & Co. KG*, 224 F.3d 1308, 1317 (Fed. Cir. 2000); *accord Primos, Inc. v. Hunter’s Specialties, Inc.*, 451 F.3d 841, 848 (Fed. Cir. 2006) (“[T]he terms ‘engaging’ and ‘sealing’ are both expressly recited in the claim and therefore ‘engaging’ cannot mean the same thing as ‘sealing’; if it did, one of the terms would be superfluous.”); *Chi. Bd. Options Exch., Inc. v. Int’l Sec. Exch., LLC*, 677 F.3d 1361, 1369 (Fed. Cir. 2012) (noting “[t]he general presumption that different terms have different meanings”).

In the above-quoted recital of “the at least one associated deny access time interval being a time period *during which* telecommunications network access for the terminal is denied,” the phrase “during which” indicates that the term “time period” refers to a duration of time.

As to the specification, the patent uses the terms “time interval” and “time slot” to refer to spans of time that are bounded by a start time and an end time (although the start and end times can be variable):

Each terminal A-D has been assigned a *time interval* during which access to the telecommunications network 1 will be granted.

In this example, for terminals A and B, access will be granted between 0800-1100 pm. For terminal C, access will be granted between 0000-0500 am. These *time intervals* are typically *off-peak intervals* for most days of the year. Batches of terminals may be defined and assigned a particular *interval* of the off-peak hours. For terminal D, a *variable time interval x-y* is scheduled, depending on the network load experienced by or expected for the telecommunications network 1. If the network load drops below or is expected to drop below a particular threshold, access is granted to the terminal D.

Of course, the *time intervals* may also relate to *time slots* during which access to the telecommunications network 1 is denied, i.e. access deny *time intervals*. Multiple *time intervals* may be assigned to a terminal.

'667 Patent at 4:57–5:6 (emphasis added). Thus, as demonstrated by this disclosure of “0800–1100 pm,” “0000–0500 am,” “interval of the off-peak hours,” and “variable time interval x-y,” “time intervals” and “time slots” are bounded by particular start and end times. *See id.*

By contrast, the term “time period,” as used in the above-quoted claim language, can refer to a duration of time rather than to specific boundaries, as discussed above. Likewise, Plaintiff’s expert opines:

[T]he term “time period” is a common, non-technical phrase that readily would have been understood not only by one of ordinary skill in the art, but also by any layperson. Further, the patent discloses no intent for the term to deviate from its plain and ordinary meaning. Instead, it uses the term to refer, without further limitation, to any period of time, which can include for example, such concepts as time intervals. As a result, one of ordinary skill in the art would not understand “time period” to be limited to a “time slot” as Defendants contend. “Time slot” has a specific, more limited meaning in the telecommunications field wherein it generally refers to a time interval of a fixed duration that is commonly understood to further be limited to beginning and ending at defined times.

(Dkt. No. 147, Jan. 27, 2016 Rhyne Decl., at ¶ 31.) The opinion of Plaintiff’s expert is persuasive in this regard and provides additional support for the Court’s construction. *See Teva*, 135 S. Ct. at 841.

Accordingly, the Court hereby construes “**time period**” to mean “**a duration of time**.”

#### E. “**deny access time interval**”

Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
No construction necessary.  Alternatively: “a time interval during which an access request for access to the telecommunications network is to be denied”	“time slot during which access to the telecommunications network is denied”

(Dkt. No. 130, Ex. A, at 18; Dkt. No. 146, at 36; Dkt. No. 160, at 35; Dkt. No. 165, Ex. D, at 1.)

The parties submit that this term appears in Claims 31, 33, and 35 of the '667 Patent. (Dkt. No. 130, Ex. A, at 18.)

#### (1) The Parties' Positions

Plaintiff argues that Defendants improperly rely upon a description of a particular disclosed embodiment, and Plaintiff also urges that Defendants' proposed construction "improperly suggests that access to the network as a whole must be denied during a 'deny access time interval.'" (Dkt. No. 146 at 37.)

Defendants respond that their proposed construction "is the patentee's express definition in the specification." (Dkt. No. 160 at 35 (citing '667 Patent at 5:3–5).) Further, Defendants argue that whereas Plaintiffs' proposal of "interval" "really amounts to 'duration,'" "a 'slot' is assigned or scheduled, while a duration is not." (Dkt. No. 160 at 36.)

Plaintiff replies that "the patent's description of 'access deny time intervals' to which [Defendants] point[] to define 'deny access time interval' (a *different* term) was framed by its discussion of a specific embodiment." (Dkt. No. 163 at 13.)

At the April 19, 2016 hearing, Defendants argued that a "time interval" must have a start and an end and cannot be merely a duration.<sup>9</sup> Plaintiff responded that the disclosure of a "variable interval x-y" encompasses a "back-off timer," for example as would arise from an instruction for a device to wait 7-10 minutes before attempting communication again.

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<sup>9</sup> At the April 19, 2016 hearing, Defendants submitted a prosecution history document titled Response to Office Action, dated November 5, 2014, and Defendants stated that it provided a copy of this document to Plaintiff approximately one week before the hearing. Plaintiff responded that this document was neither attached to, nor addressed in, Defendants' response brief. Plaintiff also noted that when Defendants provided this document to Plaintiff, Defendants did not indicate that they intended to rely upon it at the April 19, 2016 hearing. The Court assumes, without deciding, that this document can be considered. Even when considered, however, this document does not significantly affect the Court's analysis.

## (2) Analysis

Claim 31 of the '667 Patent expressly recites: “the at least one associated deny access time interval being a time period during which telecommunications network access for the terminal is denied.” Claims 33 and 35 are similar.

As discussed above regarding the term “time period,” the specification demonstrates that “time intervals” are bounded by particular start and end times, as evident from the examples of “0800–1100 pm,” “0000–0500 am,” “interval of the off-peak hours,” and “variable time interval x-y.” *See* '667 Patent at 4:57-5:6; *see also id.* at Fig. 2. Further, the specification refers to a “deny access time interval” as indeed being a “time interval”:

It should be appreciated that an equivalent of the grant access time interval includes a *deny access time interval identifying a time interval during which an access request for access to the telecommunications network is to be denied*.

\* \* \*

By providing the option of specifying one or more *time intervals* during which access to the telecommunications network is allowed for a particular terminal or group of terminals, the network operator planning and control of the use of network resources is facilitated. Denying or blocking access during *time intervals* can prove advantageous in various situations. In particular, some machine-to-machine (M2M) applications do not require the transfer of data to be immediate. If these applications are prevented from claiming one or more network resources *during e.g. peak load hours*, network resources can be saved. Such subscriptions may e.g. be offered at a lower subscription rate.

*Id.* at 2:17–20 & 2:44–55 (emphasis added); *see id.* at 2:9–11 (“Access to the telecommunications network for said terminal is denied if the access request is received outside the time interval.”).

Defendants have emphasized disclosure that “the time intervals may also relate to time slots during which access to the telecommunications network 1 is denied, *i.e.* access deny time intervals.” *Id.* at 5:3–5 (emphasis added). Plaintiff has responded that the Court should “refuse[]

to limit a disputed claim term to a narrow definition introduced by ‘i.e.’ in a patent specification [where] the specification expressly include[s] a broader definition of the term in a different section that the patentee clearly intended . . . to address the meaning of the same term.” *SkinMedica, Inc. v. Histogen Inc.*, 727 F.3d 1187, 1202 (Fed. Cir. 2013) (citation and internal quotation marks omitted). Nonetheless, in some circumstances, “‘i.e.’ signals an intent to define the word to which it refers.” *Edwards Lifesciences LLC v. Cook Inc.*, 582 F.3d 1322, 1334 (Fed. Cir. 2009). The Court need not resolve whether this use of “i.e.” gives rise to an express definition, however, because the above-cited claim recitals and specification disclosures sufficiently support Defendants’ proposed interpretation.

Finally, the proper meaning can best be made clear by referring to a “time slot,” which is consistent with the above-discussed disclosures in the specification and which will convey that a “deny access time interval” is bounded by particular (albeit potentially “variable,” *see ’667 Patent at 4:65*) beginning and end times. (*See* Dkt. No. 147, Jan. 27, 2016 Rhyne Decl., at ¶ 31); *see also Teva*, 135 S. Ct. at 841.

Accordingly, the Court hereby construes “**deny access time interval**” to mean “**time slot during which access to the telecommunications network is denied.**”

## **F. Claims 31 and 35**

Defendants argue that Claims 31 and 35 of the ’667 Patent are “invalid mixed apparatus and method claim[s].” (Dkt. No. 160 at 40.)

### (1) The Parties’ Positions

Plaintiff argues that “[w]ith respect to Claim 31, for example, even [Defendants] do[] not allege the claim references a user—much less claims specific ‘user action.’” (Dkt. No. 146 at 39 (citation and internal quotation marks omitted).) Plaintiff submits that “the limitation to which

[Defendants] point[] shows that it does not even describe a method step; it simply describes, in functional detail, one *capability* of the disclosed network.” (*Id.*) Likewise, Plaintiff argues, “Claim 35 simply discloses a terminal for use in a network wherein certain actions are capable of being performed.” (*Id.* at 40.)

Defendants respond, as to Claim 35: “[I]n order for a terminal to directly infringe the claim, the network in which it operates must perform certain actions. Infringement of an apparatus claim cannot properly turn on the question of a third party’s actions, and the claim must be invalid.” (Dkt. No. 160 at 38.) Defendants urge that “it is unclear whether infringement of claim 35 occurs when the terminal is manufactured, when the terminal is used during a period of network congestion, or when the terminal is used such that it attempts to send M2M data during a period of network congestion.” (*Id.* at 39–40.) As to Claim 31, Defendants similarly argue: “The phrases ‘are executed’ and the ‘terminals . . . are denied access’ are not merely functional language, and do not merely describe a configuration or capability. They require action.” (*Id.* at 40.)

Plaintiffs reply that “[t]he Court does not need to look beyond *HTC Corp. v. IPCom GmbH & Co., KG*, 667 F.3d 1270, 1277 (Fed. Cir. 2012), to reject [Defendants’] mixed-method arguments.” (Dkt. No. 163 at 14.)

At the April 19, 2016 hearing, the parties reiterated the arguments set forth in their briefing.

## (2) Analysis

“A single patent may include claims directed to one or more of the classes of patentable subject matter, but no single claim may cover more than one subject matter class. *IPXL Holdings[, LLC v. Amazon.com, Inc.]*, 430 F.3d [1377,] 1384 [(Fed. Cir. 2005)] (holding

indefinite a claim covering both an apparatus and a method of using that apparatus)."

*Microprocessor Enhancement Corp. v. Tex. Instruments Inc.*, 520 F.3d 1367, 1374 (Fed. Cir. 2008).

Claims 31 and 35 of the '667 Patent recite (emphasis added):

31. A telecommunications network configured for providing access to a plurality of terminals, each terminal associated with a unique identifier for accessing the telecommunications network, wherein the telecommunications network comprises:

a register configured to store the unique identifier of at least one terminal in combination with identification of at least one associated deny access time interval, the at least one associated deny access time interval being a time period during which telecommunications network access for the terminal is denied;

one or more processors;

memory storing processor instructions that, when executed by the one or more processors, cause the one or more processors to carry out operations including:

an access request operation to receive an access request from the terminal and to receive or determine the unique identifier associated with the terminal;

an access operation to deny access for the terminal if the access request is received within the time period,

wherein the telecommunications network is further configured to monitor a network load of the telecommunications network,

wherein the telecommunications network is further configured to adapt the time period depending on the monitored network load, and

wherein *machine-to-machine applications are executed*, and wherein *the plurality of terminals for the machine-to-machine applications are denied access* to the telecommunications network during peak load time intervals, the time period being within peak load time intervals.

\* \* \*

35. A terminal for use in a telecommunications network, wherein the telecommunications network is configured for providing access to a plurality of terminals, each terminal being associated with a unique identifier for accessing the telecommunications network,

wherein the terminal comprises a message receiver configured for receiving a message from the telecommunications network, the message comprising information relating to a deny access time interval, the deny access time interval being a time period during which telecommunications network access for the terminal is denied,

*wherein the time period is adapted* by the telecommunications network depending on a monitored network load, and

wherein the terminal further comprises one or more processors, and memory storing processor instructions that, when executed by the one or more processors, cause the one or more processors to carry out operations including:

an access request operation for transmitting an access request to the telecommunications network in accordance with the deny access time interval,

wherein *machine-to-machine applications are executed* in the telecommunications network, and wherein *the terminal for the machine-to-machine applications are denied access* to the telecommunications network during peak load time intervals, the time period being within peak load time intervals.

In the *HTC* case relied upon here by Plaintiff, network environment limitations were likewise at issue:

A mobile station for use with a network including a first base station and a second base station that achieves a handover from the first base station to the second base station by:

storing link data for a link in a first base station,

holding in reserve for the link resources of the first base station, and when the link is to be handed over to the second base station:

initially maintaining a storage of the link data in the first base station,

initially causing the resources of the first base station to remain held in reserve, and

at a later timepoint determined by a fixed period of time predefined at a beginning of the handover, deleting the link data from the first base station and freeing up the resources of the first base station, the mobile station comprising:

an arrangement for reactivating the link with the first base station if the handover is unsuccessful.

*HTC*, 667 F.3d at 1273.

On balance, the network limitations in Claims 31 and 35 of the '667 Patent are analogous to the network limitations that were at issue in *HTC*. See *HTC*, 667 F.3d at 1277 (“If the network performs the functions, the claims are not indefinite because the claims merely describe the network environment in which the mobile station must be used.”); *see also Microprocessor Enhancement*, 520 F.3d at 1375 (noting that “functional language” is permissible in claims);

*Typhoon Touch*, 659 F.3d at 1381–82 (“We discern no error in the district court’s view that this term requires that the device is programmed or configured to perform the stated function.”).

The authorities cited by Defendants involved user action limitations rather than network environment limitations and are therefore unpersuasive. *See IPXL*, 430 F.3d at 1384 (“the user uses the input means”); *see also In re Katz Interactive Call Processing Patent Litig.*, 639 F.3d 1303, 1318 (Fed. Cir. 2011) (“wherein . . . callers digitally enter data” and “wherein . . . callers provide . . . data”); *H-W Tech., L.C. v. Overstock.com, Inc.*, 758 F.3d 1329, 1336 (Fed. Cir. 2014) (“wherein said user completes . . .” and “wherein said user selects . . .”); *UltimatePointer, LLC v. Nintendo Co., Ltd.*, No. 6:11-CV-496, 2013 WL 2325118, at \*22–\*23 (E.D. Tex. May 28, 2013).

Accordingly, the Court hereby rejects Defendants’ argument that Claims 31 and 35 of the ’667 Patent are invalid as improper mixed apparatus and method claims.

### **VIII. CONCLUSION**

The Court adopts the constructions set forth in this opinion for the disputed terms of the patents-in-suit. In reaching these conclusions, the Court has considered and relied upon extrinsic evidence, including expert declarations, submitted by the parties. The Court’s constructions thus include subsidiary findings of fact based upon the extrinsic evidence presented by the parties in these claim construction proceedings. *See Teva*, 135 S. Ct. at 841.

The parties are ordered that they may not refer, directly or indirectly, to each other’s claim construction positions in the presence of the jury. Likewise, the parties are ordered to refrain from mentioning any portion of this opinion, other than the actual definitions adopted by the Court, in the presence of the jury. Any reference to claim construction proceedings is limited to informing the jury of the definitions adopted by the Court.

Within thirty (30) days of the issuance of this Memorandum Opinion and Order, the parties are hereby **ORDERED**, in good faith, to mediate this case with the mediator agreed upon by the parties. As a part of such mediation, each party shall appear by counsel and by at least one corporate officer possessing sufficient authority and control to unilaterally make binding decisions for the corporation adequate to address any good faith offer or counteroffer of settlement that might arise during such mediation. Failure to do so shall be deemed by the Court as a failure to mediate in good faith and may subject that party to such sanctions as the Court deems appropriate.

**So ORDERED and SIGNED this 6th day of May, 2016.**



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RODNEY GILSTRAP  
UNITED STATES DISTRICT JUDGE